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ENVIRONMENTAL PROTECTION DIVISION

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June 26, 2019

VIA ELECTRONIC SUBMITTAL

Ms. Leigh Lattimore
Superfund Site Assessment Manager
U.S. Environmental Protection Agency
Waste Management Division
Superfund Site Evaluation Section
61 Forsyth Street, SW
Atlanta, Georgia 30303-3104

RE: Powder Springs Road Plating
Austell, Cobb County, Georgia
Preliminary Assessment Report

Dear Ms. Lattimore:

Attached you will find a Preliminary Assessment (PA) report that has been completed by the Georgia Environmental Protection Division (GEPD) for the above referenced site. Should you have questions or comments regarding the PA report, please contact Mr. Peter Johnson, P.G. at (404) 657-0490.

Sincerely,

Andrew S. Taft
CERCLA Site Assessment Coordinator
Response and Remediation Program

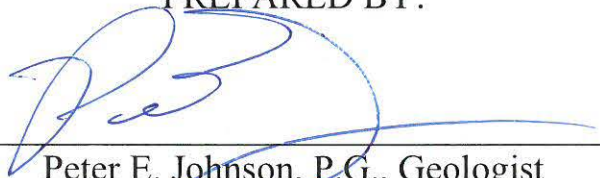
cc: David Brownlee, GEPD
Peter Johnson, GEPD

**PRELIMINARY ASSESSMENT
POWDER SPRINGS ROAD PLATING
AUSTELL, COBB COUNTY, GEORGIA**

PREPARED FOR:

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PREPARED BY:



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Andrew S. Taft
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June 2019

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(Austell, Cobb County, Georgia)

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LIST OF ACRONYMS
Powder Springs Road Plating – Preliminary Assessment
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AWS	Austell Water System
BGS	Below Ground Surface
CCWS	Cobb County Water System
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFS	Cubic Feet Per Second
CMWA	Cobb-Marietta Water Authority
CPWS	College Park Water System
EPWS	East Point Water System
ERRS	Emergency and Rapid Response Services
FEMA	Federal Emergency Management Agency
GDNR	Georgia Department of Natural Resources
GEPD	Georgia Environmental Protection Division
GPS	Global Positioning System
HRS	Hazard Ranking System
NPL	National Priority List
OROR	Overland Run-Off Route
OSC	On-scene coordinator
PA	Preliminary Assessment
POTW	Publicly Owned Treatment Works
PPE	Probable Point of Entry
PSA	Pre-CERCLA Screening Assessment
PSWS	Powder Springs Water System
RAL	Removal Action Levels
SARA	Superfund Amendments and Reauthorization Act of 1986
SEMS	Superfund Enterprise Management System
SI	Site Inspection
START	Superfund Technical Assessment and Response Team
TDL	Target Distance Limit
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WSO	Weather Service Office

NARRATIVE REPORT

NARRATIVE REPORT
Powder Springs Road Plating – Preliminary Assessment
(Austell, Cobb County, Georgia)

1.0 INTRODUCTION

Pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Georgia Environmental Protection Division (GEPD) of the Georgia Department of Natural Resources (GDNR) has completed a Preliminary Assessment (PA) of Powder Springs Road Plating in Austell, Cobb County, Georgia (hereinafter, the “site”).

The purposes of this investigation are: to collect information concerning current conditions at the site sufficient to assess the threat posed to human health and the environment; to determine the need for additional investigation under CERCLA or other applicable authority; and, if appropriate, to support a site evaluation using the Hazard Ranking System (HRS) for possible proposal to the National Priorities List (NPL), in accordance with the following documents:

- Federal Register, 40 CFR Chapter 1, Subchapter J, Part 300, Subpart L – Appendix A, *Hazard Ranking System*, Final Rule, December 14, 1990 (Ref. 1);
- U.S. Environmental Protection Agency, *Hazard Ranking System Guidance Manual*, Office of Solid Waste and Emergency Response, Publication 9345.1-07, PB92-96337, EPA 540-R-92-026, November 1992 (Ref. 2); and
- U.S. Environmental Protection Agency, *Guidance for Performing Preliminary Assessments under CERCLA*, Office of Emergency and Remedial Response, Washington, DC 20460, EPA/540/G-91/013, September 1991 (Ref. 3).

The scope of this PA consisted of the following:

- A review of available documentation on file at the GEPD;
- A review of information available on the World Wide Web; and
- An evaluation of the Groundwater Migration, Surface Water Migration, Soil Exposure and Air Migration Pathways (Refs. 1 – 3).

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY & WASTE CHARACTERISTICS

2.1 Site Location

The site is located at 5535 and 5491 Austell Powder Springs Road, Austell, Cobb County, Georgia, approximately $\frac{3}{4}$ mile northwest of downtown Austell (Refs. 5 – 7 & 12). Vehicular access to the site is obtained via Austell Powder Springs Road. Figures 1 and 2 depict the site location.

Global Positioning System (GPS) coordinates of the site reference point are Latitude 33.820297° North and Longitude 84.642108° West, which mark the approximate location of the sampling location PSP-S-27, where a release of lead was detected at 10,200 mg/kg in soil (Refs. 1 – 3, 6 &

24). PSP-S-27 was collected during a USEPA Superfund Technical Assessment and Response Team (START) sampling event in the northern half of the interior of the former plating building, previously located in the northwestern portion of the site (Refs. 6 & 24). See Table 1 for Method Accuracy Description Data, which includes the GPS coordinates for the site reference point. Figures 2 and 3 include the location of the site, site reference point and approximate site boundaries.

The site is situated adjacent and east/northeast of Austell Powder Springs Road across from Legion Field, south of Stovall Road, and west/northwest of Sweetwater Creek (Refs. 5, 7, 12 & 70). Various commercial establishments are found along Austell Powder Springs Road in the nearby area of the site. The general area surrounding the site is a mixture of residential and commercial properties. Figure 2 depicts the general site location, approximate site boundaries and the site reference point.

According to readings collected by the nearest station to the site measuring local weather conditions, the Douglasville, Georgia weather station, the mean annual precipitation was 53.63 inches for the time-period from 1940 through 2004 (Refs. 5, 7, 9 & 12). For the time-period from 1941 through 1970, the average run-off for the area of the site was 16 – 18 inches (Refs. 5, 7, 10 & 12).

A Superfund site inventory search was conducted in the United States Environmental Protection Agency's (USEPA) Superfund Enterprise Management System (SEMS) database for sites located in Cobb County, Georgia (Ref. 11). Sixty-five active sites (including the site) and 38 archived sites were listed on the SEMS database, none of which are listed on the NPL at the time of this PA (Refs. 5, 7, 11 & 12).

2.2 Site Description

The site is comprised of the following four contiguous Cobb County Parcels (Refs. 5, 7 & 12):

- Tax Parcel Numbers at 5535 Austell Powder Springs Road: 19128200450 (hereinafter referred to as "South Parcel") and 19128100150 (hereinafter referred to as "West Parcel"); and
- Tax Parcel Numbers at 5491 Austell Powder Springs Road: 19128100160 (hereinafter referred to as "North Parcel") and 19128200090 (hereinafter referred to as "East Parcel").

The four parcels are owned by Powder Springs Industrial, LLC and their combined area is approximately 11.24 acres (Ref. 7).

Two metal buildings are located in the west central portion of the site (Refs. 5, 7 & 12). One approximately 10,000 square foot metal building (hereinafter referred to as "Building A") is situated approximately 75 feet east of Austell powder Springs Road. The smaller, approximately 6,000 square foot metal building (hereinafter referred to as "Building B") is situated approximately 40 feet northeast of Building A. More valuable non-ferrous metals are stored within Building A. Other metals are stored outside in the roll-off boxes located to the west of Building A.

Paved surfaces are limited to the areas just west of Buildings A and B and gravel surfaces are limited to the areas just north and east of Building A (Refs. 5 & 6). Manicured grass is located along Austell Powder Springs Road, Buildings A and B and the northwestern portion of the site. Areas east and south of the metal buildings are covered with tall grass and shrubs. Forested areas are located along the entirety of the eastern boundary of the site, paralleling Sweetwater Creek and around an approximate 1-acre on-site pond located near the northeastern boundary of the site (hereinafter referred to as “Pond A”). A swinging chain-linked fence gate is located at the entrance to the site. Approximately 40 feet of chain-linked fence extends from the entrance gate towards the north and south along the western boundary of the site. No other fencing exists along the other boundaries of the site.

The following additional site details were obtained during GEPD’s May 14, 2019 on-site/off-site reconnaissance (Ref. 5):

- Access to the site was gained by GEPD personnel via Austell Powder Springs Road, just north of a bridge that passes over Sweetwater Creek. The site is located to east/northeast of Austell Powder Springs Road;
- The site was bounded by an approximately 1.5-acre predominantly empty gravel lot to the north, Sweetwater Creek to the east and south and Austell Powder Springs Road to the west. Legion Field, a city park with baseball fields, a playground and pavilion was observed just to the west of the site, across Austell Powder Springs Road;
- Small pieces of scrap metal organized in multiple containers, aluminum cans and various other pieces of scrap metal were observed within Building A. An indoor soccer field was observed within the entirety of Building B;
- Pieces of scrap metal and metal appliances were observed within multiple roll-off boxes located on the paved area northwest of Building A. Scrap metal pieces and piping were being unloaded from a truck and pull-behind trailer and placed into a roll-off box at the time of the reconnaissance;
- An area barren of grass and areas of stressed vegetation (approximately eight feet by 20 feet) were observed near the northwestern-most portion of the site, within the approximate area where USEPA removal activities were conducted in 2009 – 2010;
- Well-defined drainage ditches were observed to the northwest of Building A, along the northwestern and northern boundaries of the site, just east of Austell Powder Springs Road. The ditch along the northwestern boundary slopes towards the north and intersects with the ditch along the northern boundary, which slopes towards the east/northeast and ultimately discharges to Pond A, located on the northeast portion of the site. A drainage ditch was observed extending from the northeastern-most paved area to the ditch running along the northern boundary of the site. No water was observed within the drainage ditches at the time of the site reconnaissance. Site-generated run-off from areas north and northwest of the metal buildings flows through the ditches and ultimately discharge to Pond A;

- Multiple turtles and geese were observed within Pond A. Tall grass, shrubs and trees circumscribed Pond A. An approximately 10-foot-long dam comprised of sticks and logs was observed on the northeastern end of Pond A. An approximately 25-foot-long well-defined drainage ditch was observed extending from the dam to Sweetwater Creek. No water was observed within the drainage ditch at the time of the site reconnaissance;
- A well-defined drainage ditch was observed to the southwest of Building A along the western boundary of the site, just east of Austell Powder Springs Road. The ditch along the southwestern boundary slopes towards Sweetwater Creek to the south/southeast, meanders towards the northeast through low-lying areas paralleling Sweetwater Creek and ultimately discharges to Sweetwater Creek at a point approximately 300 feet north (downstream) of the Austell Powder Springs Road bridge over Sweetwater Creek; and
- A discernible flow towards the north in Sweetwater Creek was observed when reconnoitering the eastern boundary of the site. A narrow, maintained area/path was observed approximately 10 feet west and paralleling Sweetwater Creek. Large concrete manholes protruding upward from the ground were observed intermittently along the maintained area/path. Turtles and fish were observed within Sweetwater Creek downstream of the Austell Powder Springs Road bridge over Sweetwater Creek.

See Appendix B for the entirety of the Trip Report documenting GEPD's May 14, 2019 on-site/off-site reconnaissance, which includes additional details, photographs and field notes.

Overall site topography is moderately flat (Refs. 5, 7, 8 & 12). From the central portion of the site, there is a slight slope towards the southeast, south and southwest. Elevations at the site range from 900 to 880 feet above sea level.

Issued by the Watershed Protection Branch of the GEPD (in accordance with the provisions of the Georgia Water Quality Control Act and the Georgia Rules for Water Quality Control), the site is a permittee of the general permit for Stormwater Discharges Associated with Industrial Activity (GAR050000), which authorizes the site to discharge storm water associated with on-site industrial activity to waters of the State of Georgia under the National Pollution Discharge Elimination System (Ref. 50).

According to the Federal Emergency Management Agency (FEMA), the site is located in Flood Zone AE within a Special Flood Hazard Area, areas determined to be subject to inundation by the 1-percent annual chance flood (100-year flood), (Ref. 28).

Figure 3 depicts the nearby surrounding area, approximate site boundaries and the site reference point.

2.3 Operational History

An electroplating facility operated on the North Parcel and the northwest portion of the East Parcel (hereinafter referred to as "Electroplating Area") until 2009 under the varying business names of HW Enterprises, Inc., Peach Chrome Plating and HWB Enterprises (Refs. 4, 7, 24 & 51). The

exact year the electroplating business began was unknown at the time of this PA; however, the business operated for a minimum of 20 years (Ref. 51).

An electroplating building, approximately 7,000 square feet in area, with an attached paint booth, a mobile trailer and a storage building, were utilized in the electroplating operations in the Electroplating Area portion of the site (Refs. 5, 7, 12 & 24). Two concrete-lined pits associated with a pre-treatment/wastewater treatment system used in the electroplating operations were located between the mobile trailer and paint booth. Figure 4 depicts a 2010 Aerial Photograph that includes approximate site boundaries, site reference point and site features prior to the USEPA removal activities conducted from 2009 – 2010. Figure 4 also defines the boundaries of the Electroplating Area, which includes the former buildings used in the electroplating operations.

Electroplating is a type of metal finishing that alters the superficial properties of a metal to increase the strength and shine and reduce corrosion of a metal (Ref. 53). Electroplating operations can include metal surface treatment and surface preparation and post-plating treatment. Cyanide and cyanide salts, volatile organic compounds (VOCs), alkaline and acid solutions, chromic acid, chromium, lead, nickel, zinc and cadmium are all substances that can be used in the electroplating process (Refs. 53 & 54).

According to the Pretreatment Unit Coordinator for the Cobb County Water and Sewer Department in 2009, the facility had a pretreatment permit for disposal of electroplating waste liquids at that time (Ref. 4). Any industrial facility who discharges process wastewater to a publicly owned treatment works (POTW) and is classified as a significant industrial user must obtain a pretreatment permit (Ref. 52). Any POTW that receives process wastewater may implement an EPD approved local pretreatment program, and issue local pretreatment permits. Pretreatment permits are designed to protect a POTW infrastructure and reduce conventional and toxic pollutant levels discharged by industries to a POTW and into the environment. HW Enterprises, Inc., Peach Chrome Plating or HWB Enterprises were not listed under the EPD approved pretreatment programs at the time of this PA.

A complaint initiated by the Pretreatment Unit Coordinator for the Cobb County Water and Sewer Department for the site was documented on October 23, 2009 in the GDNR Complaint Tracking System (Complaint ID 59791), specifically for 5491 Powder Springs Road, Austell, Georgia 30106 (North and East Parcels) for a release of chromic acid, nitric acid and hexavalent chromium due to flooding (Refs. 4, 5, 7 & 12).

Flooding impacted Atlanta and surrounding areas between September 15 – 22, 2009 (Ref. 55). At the peak of the flooding, between 10 and 20 inches of rain fell in the Atlanta metropolitan area in less than 24 hours, resulting in flash flooding and swollen river basins for weeks following. The portion of Sweetwater Creek near Austell, Georgia experienced a record of 20 feet above flood stage, resulting in flooding of areas nearby Sweetwater Creek, including the entirety of the site.

In response to the complaint initiated by the Pretreatment Unit Coordinator for the Cobb County Water and Sewer Department, GEPD personnel conducted a complaint site inspection on October 23, 2009 (Ref. 4). Heavy rain was noted during the time of the inspection.

The following observations were made during GEPD's October 23, 2009 complaint site inspection of the Electroplating Area portion of the site (Ref. 4):

- Damaged fencing circumscribing portions of the site was observed and access to the site was unrestricted;
- Discolored dark brown to black liquid and sludge mixed with soil was observed on the floor of the electroplating building. The dark liquid was observed emanating from the plating tank area (near the west side of the building) and from an unknown number of overturned 55-gallons drums of unknown contents (in the northern portion of the building);
- A one-inch hose with one end laying inside the plating tank and the other end laying on the building floor was observed. The volume of the tank was approximately 600 gallons and was mostly empty. Dark brown liquid and debris and sludge was observed in the bottom of the tank, below the opening of the hose. The hose was stained dark brown;
- Sixteen partially full 55-gallon unlabeled containers were observed full of a material similar in appearance to waste sludge near the plating area, on the western side of the electroplating building. Six additional partially full 55-gallon containers were observed in the northwest corner of the electroplating building. The labels on the 55-gallon containers were damaged; however, one label was legible and read "Caustic Soda Anhydrous." One additional partially full 55-gallon container was observed open, laying on its side, with metallic material extending from the drum onto the building floor;
- Multiple partially full 5-gallon containers of plating bath additives were scattered throughout the interior of the electroplating building. Among those with legible labels adhered to the 5-gallon containers included two "Cupra Brite 432 Replenisher" containers, two "DIS-MIST" containers and two "Reflecta Maintenance-Nickel Plating Agent" containers. The exact number of containers were not documented at the time of the inspection;
- Two partially full 5-gallon containers of nickel sulfate liquid were observed near a tear in the wall on the exterior of the electroplating building;
- Two full 275-gallon plastic totes contained brown liquid were located inside the electroplating building;
- A pool of dark red-brown liquid with a yellow/green halo similar in appearance to chromic acid was observed emanating from the floor of the electroplating building onto the asphalt parking area. The pH of the liquid was 3.0, measured using litmus paper;
- Discolored runoff from the pool was observed running atop the asphalt for over 100 yards towards the north and east, ultimately discharging to Sweetwater Creek;
- Intermittent portions of the asphalt were cracked and broken;
- Two partially full approximately 275-gallon plastic totes of unknown content and several

other containers of varying sizes of unknown content and unknown volume were observed in a fielded area on the East Parcel;

- The pre-treatment/wastewater treatment system area was observed on exterior of the electroplating building to the east. A round settling tank and rectangular mixing tank, both sunken into a concrete pad, were observed in the pre-treatment/wastewater treatment system area with dark brown liquid in each tank. Dark brown liquid was also observed inside the effluent port that discharged to the county sewer system; and
- Two full 55-gallon containers, one unlabeled, one labeled “Lush Water” were observed on stands adjacent to the pre-treatment/wastewater treatment tanks. One 15-gallon container of sulfuric acid, one 15-gallon container of copper cyanide, three 55-gallon containers of sulfuric acid, one container of unknown volume labeled “Reflecta Maintenance Nickel” and one 275-gallon tote containing brown liquid was also observed in the pre-treatment/wastewater treatment system area. The volume of liquid in each container was unknown.

See Selected Reference 4 for the entirety of the Trip Report documenting the GEPD complaint site inspection of the Electroplating Area portion of the site, which includes additional details and photographs.

Subsequent to the GEPD’s October 23, 2009 complaint site inspection, the USEPA Region 4 and EPD Emergency Response teams were contacted and informed of the site conditions (Refs. 4 & 13).

The USEPA START, the USEPA On-scene coordinator (OSC) and the USEPA Emergency and Rapid Response Services (ERRS) reported to the site on the evening of October 23, 2009 (Ref. 13). During the initial response, the USEPA documented chromic acid in the approximate 600-gallon plating tank in the electroplating building, multiple unlabeled drums and containers on the interior and exterior of the on-site buildings and liquids discharging from the buildings approaching Pond A and Sweetwater Creek. USEPA also noted the hose in the plating tank and that the hose may have been used to siphon the chromic acid onto the ground surface.

Between October 24 and December 8, 2009, START and/or ERRS collected and staged the empty RCRA containers, conducted hazard categorization testing, pumped or vacuumed areas of standing water and/or hazardous substances, collected soil and sediment samples from the interior and exterior of the electroplating building, cleaned up contaminated debris, scraped, swept and pressure-washed the floor of the electroplating building and loaded and staged non-hazardous construction and demolition debris (Refs. 12 – 16 & 24). In addition, soil was excavated from areas between the paint booth and mobile trailer and nearby the storage building (Ref. 24). During this phase, START conducted air particulate monitoring. No air particulate concentrations were reported above the established site-specific health and safety plan levels.

A total of 28 soil samples and one surface water sample were collected in December 2009 from the Electroplating Area (Refs. 18, 19, 24 & 57). Composite samples were collected from 50-foot grid locations on soil within and outside of the buildings. Soil sampling depths ranged from zero

to 18 inches below ground surface (bgs). Samples collected during this phase reported lead as high as 10,200 mg/kg (in soil below the slab in the northern half of the interior of the electroplating building), total and hexavalent chromium concentrations as high as 36,400 mg/kg and 14,100 mg/kg, respectively (in sediment atop the concrete slab of the interior of the electroplating building), total and hexavalent chromium at 19.2 mg/L and 18.8 mg/L, respectively (in surface water sample collected from ponded water located inside and outside of the southeast corner of the electroplating building), (Refs. 24 & 57).

At the request of the OSC, the USEPA Technical Services Section of the Superfund Division evaluated the sampling data collected during the December 2009 removal activities (Ref. 56). Based upon the data, a time critical removal action was deemed warranted.

Between May 18 and July 8, 2010 START and/or ERRS conducted a time critical removal action in the Electroplating Area, which included additional sampling, demolition of the electroplating building, attached paint booth, a mobile trailer and a storage building, excavation of remaining contaminated soil and removal of concrete and asphalt (Refs. 21, 22 & 24). The total chromium and hexavalent chromium site-specific removal action levels (RAL) were established as 1,200 mg/kg and 128 mg/kg, respectively (Ref. 51).

Soil samples were collected concurrently during the removal of the concrete pad and soil beneath and near the buildings located in the Electroplating Area to delineate the extent of the soil contamination below the established RALs (Refs. 21, 22, 24 & 51). Soil was excavated to depths ranging between six inches and eight feet. Sediment and surface water samples were collected from the drainage ditch that runs east to west along the northern boundary of the site and surface water samples were collected from Pond A. Total chromium at 805 mg/kg and lead at 439 mg/kg were reported in the sediment sample from the drainage ditch along the northern boundary of the site and total chromium at 37.1 mg/kg and lead at 21.3 mg/kg were reported in the sediment sample from Pond A (Ref. 24).

During soil excavation activities, a partially full, unlabeled buried septic tank was discovered by the ERRS on June 8, 2010 near the north side of the former paint booth (Ref. 24). The contents of the septic tank were solidified and removed. Subsequently, the septic tank was backfilled with an unspecified type of fill material. The volume and contents of the septic tank were not specified in accessible documentation at the time of this PA.

A dye tracer test was conducted on the pre-treatment/wastewater treatment system on June 14, 2010 (Ref. 24). The test confirmed the system was discharging to the local municipal sewer system. Subsequently, on June 22, 2010 the ERRS removed two concrete pits associated with the pre-treatment/wastewater treatment system, along with soil beneath the pits to approximately eight feet bgs.

Two approximately 10,000-gallon underground storage tanks (USTs) were discovered near the southeastern corner of the former electroplating building (Ref. 24). Water and diesel fuel of unknown volume were contained in the USTs. Subsequent to the UST removal, soil was excavated beneath and around the former location of the USTs to a depth of approximately 10 feet bgs, where groundwater was encountered.

The following waste was characterized and temporarily stored on-site during the USEPA October 2009 removal activities and later transported from the site in January 2010 (Ref. 24):

- One partially full drum and one tote of unknown volume containing inorganic corrosive liquid (basic);
- Three drums and six totes of unknown volume containing inorganic corrosive liquid (acidic);
- Nine drums of unknown volume containing inorganic corrosive solid (basic);
- Eight drums of unknown volume containing soil contaminated with chromium;
- One drum of unknown volume containing cyanide;
- One tote of unknown volume containing non-hazardous neutral liquids;
- Two totes of unknown volume containing non-hazardous oil and water;
- 2,400 gallons of chromic acid solution; and
- 28.22 tons of non-hazardous soil and debris.

The following waste was removed from the site during the USEPA June 2010 critical removal action:

- 1,329.96 tons of non-hazardous soil and debris; and
- 21.5 tons of scrap metal.

See Selected Reference 24 for additional details regarding the USEPA removal activities conducted between October 2009 and July 2010, including analytical data, figures and photographs.

Currently, no buildings or structures exist within the Electroplating Area portion of the site (Refs. 5 & 6). Figure 4 depicts a 2010 Aerial Photograph that includes approximate site boundaries, site reference point and site features prior to the USEPA removal activities conducted from 2009 – 2010. Figure 4 also defines the boundaries of the Electroplating Area, which includes the former buildings used in the electroplating operations.

The site, including all four contiguous Cobb County Parcels, is currently owned by Powder Springs Industrial, LLC (Refs. 5, 7 & 12). The businesses M&M Waste and M&M Recycling currently list 5491 Austell Powder Springs Road, Austell, Cobb County, Georgia as their business address, which includes the East and North Parcels (Refs. 7, 49 & 61). No other businesses were discovered during a World Wide Web search of the address at 5355 Austell Powder Springs Road, Austell Georgia, which includes the South and West Parcels. However, according to the Cobb County

Tax Assessor, Building A lies within the West Parcel at 5355 Austell Powder Springs Road, Austell, Cobb County, Georgia (Ref. 7).

During GEPD's May 14, 2019 on-site reconnaissance, the site owner and the M&M Waste/M&M Recycling Owner, provided the following information (Ref. 4):

- Powder Springs Industrial, LLC purchased portions of the site and began the operation of M&M Waste/M&M Recycling in 2007. The property was vacant and the buildings empty when their operation began. The property and existing use of Buildings A and B prior to their purchase of the property was unknown; and
- Powder Springs Industrial, LLC purchased the Electroplating Area portion of the site a few years following the flood of 2009 and subsequent to the USEPA demolition and excavation.

During GEPD's May 14, 2019 on-site reconnaissance, the Vice President of sales of M&M Waste/M&M Recycling, provided the following information (Ref. 4):

- M&M Waste/M&M Recycling recycles metals only. Metals are dropped off into the on-site roll-off boxes and are taken to off-site larger scrap yards, usually the day after being dropped off at the site;
- Plumbers, electricians, and homeowners are their common customers and most metals received are from households. The customers are paid by the pound;
- The site and nearby areas flooded in 2009. Materials from the upstream paper mill jammed and accumulated at the Austell Powder Springs Road bridge over Sweetwater Creek, which likely exacerbated the flooding. Most of the materials from the on-site buildings, including the buildings utilized by M&M Waste/M&M Recycling and the former electroplater, were swept away by the flooding water; and
- The used roll-off boxes stored behind Building A are rented and picked up and dropped off by local trucks.

Businesses that may have operated on-site prior to M&M Waste/M&M Recycling, HW Enterprises, Inc., Peach Chrome Plating and HWB Enterprises are unknown at the time of this PA.

2.4 Waste Characteristics

According to the USEPA and the U.S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, cyanide and cyanide salts, VOCs, alkaline and acid solutions, chromic acid, chromium, lead, nickel, zinc and cadmium are all substances that can be used and/or generated in the electroplating process (Refs. 53 & 54).

For the purposes of this PA, the following are considered potential sources (i.e., an area where a hazardous substance has been deposited, stored, disposed or placed, plus those soils that have

become contaminated from migration of a hazardous substance):

- Area of potential soil contamination (Refs. 1 – 3, 5, 7 & 12 - 24):
 - Contaminated Soil (excluding impenetrable surfaces): 400,443.92 ft².

The following hazardous substances were detected in on-site soils during the 2009 – 2010 USEPA removal activities (Refs. 5, 7, 12 & 24):

- Chromium (Hexavalent);
- Chromium (Total); and
- Lead.

Laboratory analysis for the soil samples collected during the USEPA removal activities was limited to chromium (hexavalent and total) and lead. However, the following hazardous substances were detected in waste profile samples collected during the 2009 – 2010 USEPA removal activities (Ref. 24):

- 1,1-dichloroethene;
- 1,2-dichloroethene;
- 2-butanone;
- Barium;
- Benzene;
- Cadmium;
- Chromium (Total);
- Chloroform;
- Lead;
- Mercury;
- Pentachlorophenol;
- Tetrachloroethene; and
- Trichloroethene.

The source listed above is available to the Soil Exposure Pathway and for migration to the Groundwater, Surface Water and the Air Migration Pathways (Refs. 1 – 3).

3.0 GROUNDWATER MIGRATION PATHWAY

3.1 Hydrogeologic Setting

The site is located in the Piedmont Geologic Province of Georgia and is underlain by crystalline bedrock consisting of igneous rock, such as granites, and also metamorphic rocks, such as amphibolites, gneisses, schists and quartzites (Refs. 5, 7, 12 & 58 – 60). The types of aquifers found in this area are surficial aquifers and crystalline-rock aquifers, although the latter predominates.

The surficial aquifers, also known as regolith aquifers, are composed of surficial soil underlaid by weathered rock (saprolite) or are composed of sediments that are near stream bottoms or former stream bottoms (Refs. 58 – 60). Downward, the saprolite layer gradually turns into un-weathered bedrock. Regolith aquifers may be confined by overlying strata of rock or unconfined, in contact with the atmosphere. In unconfined regolith aquifers the water table is normally at the regolith level, the regolith serving as a reservoir due to its high porosity. These unconfined regolith aquifers are sensitive to precipitation changes, with water levels changing quickly depending on recharge rates (how much water it receives) and discharge rates (how much water is extracted from it).

The crystalline rock aquifers are composed of igneous and metamorphic rocks that, contrary to the regolith, exhibit very little porosity (Refs. 58 – 60). The water in these aquifers is stored in fractures and joints present in the rock. Fractures are breaks in the rock where there is differential displacement between the two segments, whereas joints are breaks in the rock where there is no differential displacement. Fractures that occur in massive rocks such as granites and gneisses tend to hold more water than those in schists, because these fractures can be several inches wide and run for up to ¼ mile horizontally and vertically, thus acting as better conduits of groundwater. These aquifers are of limited lateral extension in comparison with aquifers composed on sedimentary rock. For this reason, they generally do not yield large quantities of water, and they are highly affected by local precipitation and local groundwater withdrawal rates.

3.2 Groundwater Migration Targets

The site-specific groundwater Target Distance Limit (TDL) is limited to that area located within four miles of the designated site reference point (Refs. 1 – 3). Only those individuals who obtain potable water from drinking water wells located within the groundwater TDL are considered as part of a Target Population.

Appendix A depicts the site reference point and the extent of the groundwater TDL.

3.2.1 Groundwater Target Population

3.2.1.1 Domestic Drinking Water Wells

At the time of the 1990 U.S. Census of Population and Housing (the last census to collect domestic well information), there were 696 individuals who obtained drinking water from 244 domestic wells that were located within four miles of the site reference point (Refs. 1 – 3, 6, 24 & 47). The 1990 census indicated there were no domestic wells located within one mile of the site reference point. Further, during a well survey conducted by the GEPD on May 14, 2019, there were no domestic wells observed within ½ mile of the site reference point (Refs. 1 – 3, 5, 6 & 24).

For the purposes of this PA, there are no domestic wells located within one mile of the site reference point. Table 2 sets forth the approximate population served by domestic wells located within four miles of the site reference point per concentric distance category.

3.2.1.2 Public Drinking Water Wells

One municipal supply well is located within the groundwater TDL (Refs. 1 – 3, 6, 24 & 46). The municipal supply well (associated with the Powder Springs Water System [PSWS]), located greater than three to four miles of the site reference point, is not considered a drinking water well based on the following:

- According to the City of Powder Springs water operator, the municipal public supply well associated with the PSWS was decommissioned in 2003 (Ref. 41); and
- Per GEPD's Active Drinking Water System List, the water source for the PSWS water system identification number associated with the well is listed as surface water purchase (Ref. 62). In addition, the well is not listed in GEPD's List of Non-farm Groundwater Withdrawal Permits.

For the purposes of this PA, there are no active municipal public supply wells located within four miles of the site reference point. Currently, potable water supplying the PSWS is purchased from the Cobb County Water System (CCWS) and the Cobb-Marietta Water Authority (CMWA), (Ref. 35). Potable water supplying the Austell Water System (AWS) is purchased exclusively from the CMWA (Ref. 34). Potable water supplying the CCWS is purchased exclusively from the Cobb-Marietta Water Authority (Ref. 33). Lake Allatoona and the Chattahoochee River are the sole potable water sources for the Cobb-Marietta Water Authority (Ref. 34).

One non-municipal public supply well (Lakeside Mobile Home Park), located greater than three to four miles of the site reference point, was also listed on the GEPD well map (Refs. 1 – 3, 6, 24, 46 & 62). A groundwater withdrawal permit or permit to operate a public drinking water system was not located within the GDNr files for Lakeside Mobile Home Park at the time of this PA; however, three active water wells within the Lakeside Mobile Home Park water system was listed in the USEPA's Safe Drinking Water Information System (Ref. 62). For the purposes of this PA, Lakeside Mobile Home Park is an active non-municipal public supply well that provides drinking water to 280 individuals from three wells, operating under Water System No. GA0970005.

Two commercial wells with the names "One Georgia Metals" (located greater than two to three miles of the site reference point) and "Standard Oil Co" (located greater than three to four miles from the site reference point) are located within the groundwater TDL (Ref. 1 – 3, 6, 24 & 46). However, for the purposes of this PA, the wells are not considered potable water sources since they are not listed in GEPD's Active Drinking water System List or GEPD's List of Non-farm Groundwater Withdrawal permits (Ref. 62).

No other known municipal or non-municipal public potable groundwater sources are currently located within the groundwater TDL (Refs. 1 – 3, 6, 24 & 46).

The current population served by public and domestic water located within four miles of the site reference point per concentric distance category is included as Table 3.

Appendix A depicts the groundwater TDL and includes the approximate locations of the above

referenced wells located within the TDL.

3.2.2 Nearest Well

At the time of the 1990 Census (the last census to collect domestic well information), 27 domestic wells were reported to be located greater than one to two miles of the site reference point (Refs. 1 – 3, 6, 24 & 47). For the purposes of this PA, there is one active non-municipal public supply well located greater than three to four miles of the site reference point and no active municipal supply public wells currently located within the groundwater TDL.

For the purposes of this PA, the nearest wells are considered to be the 27 domestic wells reported by the 1990 Census to be located greater than one to two miles of the site reference point (Refs. 1 – 3, 6, 24 & 47).

3.2.3 Wellhead Protection Area

There is no known wellhead protection area currently located within the groundwater TDL (Refs. 1 – 3, 6, 24, 34, 35 & 46).

3.2.4 Groundwater Resources

The beneficial use of groundwater for the purposes of irrigation of commercial food crops/commercial forage crops (5 acre minimum), watering of commercial livestock, as an ingredient in commercial food preparation, supply for commercial aquaculture or supply of a major/designated recreation area (excluding drinking water use) was not positively confirmed to currently occur within the groundwater TDL at this time (Refs. 1 – 3, 5, 6, 24 & 47).

3.3 Groundwater Migration Pathway Conclusions

For the purposes of this PA, a release of hazardous substances from the site to the groundwater is suspected based upon the following:

- The areas where hazardous substances may have been deposited, stored, disposed or placed, are poorly contained and have likely contributed to groundwater contamination (Refs. 1 – 3, 5, & 24);
- The mean annual precipitation of 53.63 inches per year for the area where the site is located exceeds the 40.00 inches indicated as “heavy” on the PA Guidance (page 54), (Refs. 5, 7, 9 & 12);
- The infiltration rate is likely high due to the site being relatively flat and the soils in the area predominantly consists of silts (Refs. 5, 7, 12 & 24);
- The subsurface is highly permeable as a result of the geology of the area where the site is located being characterized predominantly by crystalline rocks (Refs. 5, 7, 12 & 58 – 60); and

- The contaminants related to site operations, such as chromium, are highly mobile in groundwater (Refs. 5, 7, 12, 24 & 63).

For the purposes of this PA, it is not suspected that groundwater targets have been affected by a release of hazardous substances to groundwater (at least partially attributable to the site) based upon the following:

- Per PA Guidance (page 66), any well within $\frac{1}{8}$ mile is considered nearby and likely to be affected by a release of hazardous substances to groundwater (Ref. 3). There are no domestic or public supply wells within $\frac{1}{8}$ mile; therefore, no domestic or public supply well is considered nearby (Refs. 1 – 3, 5, 6, 46 & 47);
- No nearby drinking water well has been closed (Ref. 3, 5 & 46);
- No nearby well has a large drawdown or high production rate (Ref. 3, 5 & 46);
- There is no known drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance (Ref. 1 – 3, 5, 7, 12 & 46); and
- No drinking water well currently warrants sampling (Ref. 3, 5 & 46).

In conclusion, the Groundwater Migration Pathway by itself does not warrant further HRS evaluation at this time.

4.0 SURFACE WATER MIGRATION PATHWAY

4.1 Hydrologic Setting

The site hydrology is part of the Chattahoochee River Basin (Refs. 5, 7, 12 & 26). The Chattahoochee River Basin is located in the Blue Ridge, Piedmont and Coastal Plain physiographic provinces of Georgia (Ref. 26).

The Chattahoochee River originates in the southeast corner of Union County, Georgia, within the Blue Ridge Mountains, approximately 12 miles from the Tennessee border (Ref. 26). From its origin, the river flows southwesterly, through the Atlanta metropolitan area, until reaching the Alabama border at West Point, in Troup County, Georgia. From this point southwards, the Chattahoochee River forms the border between Georgia and Alabama, and terminates in Lake Seminole, at the Georgia-Florida border for a total distance of approximately 434 miles.

The Chattahoochee River Basin occupies a total area of approximately 8,770 square miles, of which 6,140 square miles lie in Georgia, 2,574 square miles lie in Alabama and 56 square miles lie in Florida (Ref. 26).

According to readings collected by the nearest station to the site measuring local weather conditions, the Douglasville, Georgia weather station, the mean annual precipitation was 53.63 inches for the time-period from 1940 through 2004 (Refs. 5, 7, 9 & 12). For the time-period from

1941 through 1970, the average run-off for the area of the site was 16 – 18 inches (Refs. 5, 7, 10 & 12).

According to the FEMA, the site is located in Flood Zone AE within a Special Flood Hazard Area, areas determined to be subject to inundation by the 1-percent annual chance flood (100-year flood). (Refs. 5, 7, 12 & 28).

The site-specific hydrologic setting is sub-divided into the OROR and the surface water TDL, as described below (Refs. 1 – 3).

4.1.1 Overland Run-Off Route

The site-specific OROR is the migration route that site generated run-off would follow from a particular on-site source to a perennial surface water body (Refs. 1 – 3). Further, any point at which site generated run-off enters a perennial surface water body is considered a Probable Point of Entry (PPE).

The site was predominantly topographically level (Refs. 5, 7, 8 & 12). From the central portion of the site, there is a slight slope towards the southeast, south and southwest). Elevations at the site range from approximately 880 to 900 feet above mean sea level (Ref. 8).

Three ORORs extend from the site through a series of ditches that eventually discharge to either Pond A, situated on the northeaster boundary of the site, or Sweetwater Creek, which flows along the southeastern boundary of the site (Refs. 1 – 6 & 8). Figure 5 depicts locations of Pond A, Sweetwater Creek and associated ORORs.

OROR #1 is described as follows (Refs. 1 – 3, 5, 6 & 8):

- Site-generated run-off from the north/northcentral and northwest portion of the site generally flows northwest and north until discharging into three separate well-defined drainage ditches, one along the northwestern boundary of the site, one along the northern boundary of the site and one in the northeastern portion of the site; and
- The well-defined drainage ditch located along the northern boundary of the site receives water from the ditches located along the northwestern boundary of the site and northeastern portion of the site and routes site-generated run-off eastward until discharging to Pond A.

For the purposes of this PA, the point where the drainage ditch enters Pond A is considered PPE #1. Pond A is located near the northeastern boundary of the site and totals approximately 1 acre (Refs. 5, 6, 7 & 12).

The approximate length of OROR #1 from on-site potentially contaminated soil to the point of discharge at Pond A (PPE #1) is approximately zero feet since the on-site potentially contaminated soil is adjacent to Pond A (Refs. 1 – 3, 5, 6 & 8).

OROR #2 is described as follows (Refs. 1 – 3, 5, 6 & 8):

- Site-generated run-off from the northeastern boundary of Pond A flows over and/or through a dam comprised of sticks and logs towards the east/northeast within a well-defined drainage ditch for approximately 25 feet until discharging to Sweetwater Creek.

For the purposes of this PA, the point where the drainage ditch enters Sweetwater Creek is considered PPE #2. PPE #2 is located approximately 1,000 feet downstream of the Austell Powder Springs Road bridge over Sweetwater Creek.

The approximate length of OROR #2 from Pond A to the point of discharge at Sweetwater Creek (PPE #2) is approximately zero feet since the on-site potentially contaminated soil is adjacent to Sweetwater Creek (Refs. 1 – 3, 5, 6 & 8).

OROR #3 is described as follows (Refs. 1 – 3, 5,6 & 8):

- Site-generated run-off from the southwestern and southcentral portion of the site generally flows southwest and south until discharging into two separate drainage ditches, one along the southwestern boundary of the site and one along the southeastern boundary of the site, paralleling Sweetwater Creek; and
- The drainage ditch located along the southeastern boundary of the site receives water from the ditch located along the southwestern boundary of the site and routes site-generated run-off northeastward until discharging to Sweetwater Creek.

For the purposes of this PA, the point where the drainage ditch enters Sweetwater Creek is considered PPE #3. PPE #3 is located approximately 300 feet downstream of the Austell Powder Springs Road bridge over Sweetwater Creek (Refs. 5 & 6).

The approximate length of OROR #3 from Pond A to the point of discharge at Sweetwater Creek (PPE #3) is approximately zero feet since the on-site potentially contaminated soil is adjacent to Sweetwater Creek (Refs. 1 – 3, 5, 6 & 8).

Pond A is considered a perennial surface water body at PPE #1, based on the following:

- Portions of Pond A are classified by the U.S. Fish and Wildlife Service as a PUBHx wetland, i.e., Water Regime Permanently Flooded (Refs. 5 & 27). This water regime classification is described as “Water covers the substrate throughout the year in all years;”
- Pond A was observed containing water during the GEPD May 14, 2019 on-site/off reconnaissance (Ref. 5); and
- Available aerial images of Pond A depict water within Pond A in 1993, 1999, 2002, 2004 – 2012, 2014, 2017 and 2018 (Refs. 5 & 6).

Sweetwater Creek is considered a perennial surface water body at PPE #2 and PPE #3, based on the following:

- Sweetwater Creek is shown as a perennial surface water body on the 2017 USGS topographic map of the area, starting at a point approximately 12 miles upstream of PPE #3, the most upstream site-generated discharge point to Sweetwater Creek (Ref. 8);
- The entire portion of Sweetwater Creek bordering the site is classified by the U.S. Fish and Wildlife Service as a R5UBH wetland, i.e., Riverine Permanently Flooded (Refs. 5, 7, 12 & 27). This water regime classification is described as “Water covers the substrate throughout the year in all years;” and
- A discernible flow was noted at Sweetwater Creek upstream of the site, along the southeastern boundary of the site and downstream of the site during GEPD’s May 14, 2019 on-site/off-site reconnaissance (Ref. 5).

Issued by the Watershed Protection Branch of the GEPD (in accordance with the provisions of the Georgia Water Quality Control Act and the Georgia Rules for Water Quality Control), the site is a permittee of the general permit for Stormwater Discharges Associated with Industrial Activity (GAR050000), which authorizes the site to discharge storm water associated with on-site industrial activity to waters of the State of Georgia under the National Pollution Discharge Elimination System (Ref. 50). The most recent on-site stormwater discharge sampling was conducted on March 27, 2018, collected from “Outfall #1,” located approximately 250 feet east of Building A (Ref. 69).

Figure 5 depicts the locations of Pond A, Sweetwater Creek and associated ORORs and PPEs.

4.1.2 Target Distance Limit

The site-specific surface water TDL is the migration route that site generated run-off would follow from the point it enters a perennial surface water body (i.e., PPE), to a point 15 miles downstream (Refs. 1 – 3).

The surface water TDLs associated with the site are described as follows (1 – 3, 5, 8, 26 & 27):

- TDL #1 – From PPE #1 at Pond A, Pond A flows generally towards the northeast for approximately 325 feet, until reaching a dam comprised of sticks and logs. During periods of heavy rain, water from Pond A flows over and/or through the dam into a well-defined drainage ditch towards the northeast for approximately 25 feet until its confluence with Sweetwater Creek at PPE #2. From this point, TDL #1 combines with TDL #2;
- TDL #2 – From PPE #2 at Sweetwater Creek, Sweetwater Creek flows generally south in a meandering fashion for approximately 15 miles and terminates at a point approximately ½ mile upstream of the confluence of Sweetwater Creek and the Chattahoochee River; and
- TDL #3 – From PPE #3 at Sweetwater Creek, Sweetwater Creek flows towards the north for approximately 750 feet until its confluence with TDL #2. From this point, TDL #3 combines with TDL #2.

Given that PPE #2 and PPE #3 are approximately 750 feet apart and in the same water body, the HRS Guidance (Section 8.1, page 211) allows for these two PPEs to be considered as one single PPE for the purposes of TDL measurements (Refs. 1 – 5, 12 & 26). In addition, PPE #1 within Pond A, adjacent to Sweetwater Creek, is located approximately 325 feet west of PPE #2 at Sweetwater Creek. For the purposes of this PA, there is one TDL beginning from the most upstream PPE (PPE #3) extending 15 river miles from the most downstream PPE (PPE #2) and includes the 325-foot portion of Pond A from PPE #1 to PPE #2.

Figure 6 depicts the Overland Run-Off Routes, Probable Point of Entry, Target Distant Limit & Qualifying Wetland Frontage.

Based upon available data for the time period extending from 2011 thru 2018, a mean annual discharge of approximately 163.05 Cubic Feet per Second (CFS) was recorded for Sweetwater Creek at Gauging Station Number 02336910, located approximately 1.6 miles upstream of the surface water TDL (Refs. 1 – 3, 5, 8, 26, 27 & 29). Geographic coordinates of the gauging station are approximately 33° 49' 04" North Latitude and 84° 39' 00" West Longitude (Ref. 29).

Based upon available data for the time period extending from 2004 thru 2018, a mean annual discharge of approximately 288.65 CFS was recorded for Sweetwater Creek at Gauging Station Number 02337040, located within the surface water TDL, approximately 14.5 river miles downstream of the PPE #2 (Refs. 1 – 3, 5, 8, 26, 27 & 30). Geographic coordinates of the gauging station are approximately 33° 43' 15" North Latitude and 84° 36' 54" West Longitude (Ref. 30).

For the purposes of this PA, Sweetwater Creek, within the entire extent of the surface water TDL, is considered a moderate to large stream with a flow characteristic of greater than 100 to 1,000 CFS (Refs. 1 – 3, 5, 8, 26, 27, 29 & 30).

4.2 Surface Water Migration Targets

Only those surface water targets located within the site-specific surface water TDL are considered (Refs. 1 – 3). Further, surface water targets are subdivided into the Drinking Water Threat, the Human Food Chain Threat and the Environmental Threat.

4.2.1 Drinking Water Threat

4.2.1.1 Drinking Water Intakes

Issued by the GEPD on November 29, 2012, Permit Number 048-1214-03 authorizes the City of East Point to withdraw surface water from Sweetwater Creek for the purposes of municipal water supply from a location approximately 14.5 miles downstream of PPE #2 and within the surface water TDL. (Refs. 1 – 3, 5, 8, 26, 27 & 38). Issued by the GEPD on December 18, 2018, Permit Number CS1210003 authorizes the City of East Point to operate a public community water system (Ref. 37).

The following information was provided by a representative of the City of East Point Water and Sewer Division (Ref. 39):

- The potable water source of the East Point Water System (EPWS) is surface water, withdrawn from one point within Sweetwater Creek;
- The surface water intake used to supply water for the EPWS within Sweetwater Creek is located just off of North River Road, approximately 1 mile upstream from the confluence of Sweetwater Creek and the Chattahoochee River; and
- The EPWS supplies potable water to approximately 30,000 residents in The City of East Point.

The following information was provided by a representative of the City of College Park Water and Sewer Division (Ref. 43):

- The potable water sources of the City of College Park Water System (CPWS) include the following (all currently active):
 - Four municipal groundwater supply wells (located outside the groundwater TDL);
 - Purchased water from the City of East Point;
 - Purchased water from Clayton County; and
 - Purchased water from the City of Atlanta (in emergencies only);
- Approximately 93% of the potable water supplied to the CPWS customers is purchased from the City of East Point and the Clayton County water supply systems;
- Of the purchased potable water, approximately 55% is supplied by the City of East Point water supply system and approximately 45% is supplied by the Clayton County water supply system;
- Surface water is the only potable water source used by the City of East Point (Sweetwater Creek) and the City of Atlanta (primarily Big Cotton Indian Creek) water supply systems;
- Each service connection supplied by the CPWS has the potential to receive potable water from any of the potable water sources (i.e., the system is “Blended”); and
- There are approximately 2,900 service connections in the CPWS, serving potable water to approximately 20,000 CPWS customers.

The following information was provided by a representative of the Hapeville Water and Sewer Division (Ref. 40):

- The potable water sources of the Hapeville Water System (HWS) include the following:
 - Purchased water from the City of Atlanta; and
 - Purchased water from the City of East Point;
- Approximately 99% of the potable water supplied to the HWS customers is purchased from

the City of Atlanta and approximately 1% of the potable water supplied to the HWS customers is purchased from the City of East Point;

- Each service connection supplied by the HWS has the potential to receive potable water from any of the potable water sources (i.e., the system is “Blended”);
- There are approximately 2,230 service connections in the HWS, serving potable water to approximately 7,000 HWS customers; and
- Municipal public supply wells formerly used by the HWS were decommissioned in the 1950s or 1960s.

For the purposes of this PA, the EPWS supplies potable water to customers of the EPWS, CPWS and HWS using surface water sourced from Sweetwater Creek from a location within the surface water TDL to approximately 40,300 individuals.

Other than the one surface water intake associated with the EPWS located in the surface water TDL, no other known municipal or non-municipal active surface water intakes are currently located within the surface water TDLs.

Table 4 sets forth the apportioned drinking water population for each potable water source of the EPWS.

4.2.1.2 Surface Water Resources

The beneficial use of surface water for the purposes of irrigation of commercial food crops/commercial forage crops (5-acre minimum), watering of commercial livestock or as an ingredient in commercial food preparations was not positively confirmed to currently occur within the surface water TDL (Refs. 1 – 3, 5, 6 & 24). However, the I.T. and Lodemia Terrell Community Garden and Educational Center and Nature Trail portion of the surface water TDL is considered a major/designated water recreation area (excluding drinking water use) due to its use for fishing (Refs. 1 – 3, 5, 8, 26, 27, 64 & 65).

4.2.2 Human Food Chain Threat

For the purposes of this PA, the Sweetwater Creek portion of the surface water TDL is considered a fishery based upon the following:

- An employee of a used car dealership, located approximately 350 feet north of the site, stated that he has fished Sweetwater Creek for over 20 years, particularly the section upstream of the Austell Powder Springs Road bridge over Sweetwater Creek (approximately 300 feet upstream of PPE #3), (Ref. 5). He stated he catches brim, blue catfish, crappie and bass and often consumes his catch;
- During a GEPD May 14, 2019 site reconnaissance, four fishing lure wrappers and one Styrofoam minnow bucket were observed near the bank of Sweetwater Creek within the

surface water TDL (approximately 700 feet and 1,650 feet downstream of PPE #2, respectively), (Refs. 1 – 3, 5, 8, 26 & 27);

- Portions of Sweetwater Creek within the TDL flow through private and public areas and is readily accessible to private residences and is also accessible to the public via bridges, overpasses or other access points (Refs. 1 – 3, 5, 8, 26 & 27);
- In accordance of the PA Guidance (page 91), a fishery is defined as an area of a surface water body from which food chain organisms are taken or could be taken for human consumption on a subsistence, sporting, or commercial basis (Ref. 3). Food chain species include fish, shellfish, crustaceans, amphibians, and amphibious reptiles; and
- Pursuant to Section 391-3-6-.03(14) of the Georgia Rules for Water Quality Control, streams and stream reaches not specifically listed are classified as “Fishing” (Ref. 65).

4.2.3 Environmental Threat

4.2.3.1 Aquatic Sensitive Environments (Non-Wetlands)

Table 5 sets forth the scientific name, common name, federal legal status and state legal status for each of the eight protected species reported by the GDNR (Wildlife Resources Division) to occur in the Chattahoochee River, Lower North: Sweetwater Creek, Chattahoochee River Lower North HUC10 Watershed, a watershed that entirely encompasses the surface water TDL (Refs. 1 – 3, 5, 8, 26, 27, 66 – 68). Of those protected species, seven are considered aquatic and/or aquatic/terrestrial.

For the purposes of this PA, based upon habitat descriptions and range data provided by the GDNR, habitats for the following seven protected aquatic and/or aquatic/terrestrial species are considered to occur within the Sweetwater Creek portion of the surface water TDL (Refs. 1 – 3, 5, 8, 26, 27, 66 – 68):

- Habitat for Federally Endangered or Threatened Species (one habitats):
 - Pool Sprite, Snorkelwort (plant);
- Habitat for State Endangered or Threatened Species (three habitats):
 - Bald Eagle (bird);
 - Chattahoochee Crayfish (invertebrate); and
 - Bay Star-vine (plant);
- Habitat for State Unusual Species (one habitat):
 - Pink Ladyslipper (plant); and
- Habitat for State Rare Species (two habitats):

- Yellow Ladyslipper (plant); and
- Highscale Shiner (fish).

Species habitats designated as Special Concern, Rare or Unusual by the State of Georgia are considered “particular areas, relatively small in size, important to the maintenance of unique biotic communities.”

4.2.3.2 Aquatic Sensitive Environments (Wetlands)

The United States Fish and Wildlife Service (National Wetlands Inventory) has positively confirmed the occurrence of the following aquatic sensitive environments (i.e., HRS qualifying wetlands) located within the surface water TDL (Refs. 1 – 3, 5, 8, 26 & 27):

- Pond A – There are approximately 0.30 miles of qualifying wetland frontage located within the Pond A portion of the surface water TDL; and
- Sweetwater Creek – There are approximately 10.83 miles of qualifying wetland frontage located within the Sweetwater Creek portion of the surface water TDL.

Figure 6 depicts the Overland Run-Off Routes, Probable Point of Entry, Target Distant Limit & Qualifying Wetland Frontage.

4.3 Surface Water Migration Pathway Conclusions

For the purposes of this PA, a release of a hazardous substance from the site to Pond A and Sweetwater Creek is suspected based upon the following:

- Portions of Pond A and Sweetwater Creek are immediately adjacent to the site; therefore, they are considered nearby to the site as indicated in the PA Guidance (Pages 79 and 94), (Refs. 1 – 3, 5, 6 & 8);
- The annual average precipitation of 53.63 for the Austell, Georgia area exceeds the 40 inches indicated as “heavy” in the PA Guidance (page 79), (Refs. 3 & 9);
- On-site soil, potentially contaminated with chromium, lead and other hazardous substances, is considered a poorly contained source of a hazardous substance that is prone to run-off (Refs. 1 – 3, 5 & 24);
- The well-defined drainage ditches that convey site generated run-off directly to Pond A and Sweetwater Creek at PPE #1 and PPE #2, respectively, are considered well-defined run-off routes (Refs. 1 – 3, 5, 6 & 7);
- During previous investigations, chromium and lead were detected in sediment within the site’s ORORs (Refs. 5, 8 & 24);

- As set forth in the Superfund Chemical Data Matrix, chromium, a potential hazardous substance on-site, has a persistence factor value of 1, the highest persistence factor (out of 4 total) per HRS Section 4.1.2.2.1.3; therefore, chromium is considered highly persistent and is therefore unlikely to degrade within the ORORs prior to discharging to the PPEs (Refs. 1 – 3, 5, 6, 8, 24 & 63);

For the purposes of this PA, it is suspected that surface water targets within the Pond A and Sweetwater Creek portions of the surface water TDLs have been impacted by a release of a hazardous substance from the site based upon the following:

- Sensitive environments (HRS qualifiable wetlands) within Pond A and Sweetwater Creek are located at and immediately downstream of PPEs #1 – #3; therefore, the wetlands are considered nearby (Refs. 1 – 3, 5, 5, 8 & 27);
- The fishery within the Sweetwater Creek portion of the surface water TDL is located at and immediately downstream of PPE #2 and PPE #3; therefore, the fishery is considered nearby (Refs. 1 – 3, 5, 8, 26 & 27);
- The Sweetwater Creek fishery warrants sampling (Refs. 1 – 3, 5, 6 & 8); and
- The Pond A and Sweetwater Creek wetlands warrant sampling (Refs. 1 – 3, 5, 6, 8 & 27).

In conclusion, the Drinking Water Threat of the Surface Water Migration Pathway is not of concern at this time. However, both the Human Food Chain and the Environmental Threats of the Surface Water Migration Pathway, when considered independently, warrant further HRS evaluation.

5.0 SOIL EXPOSURE PATHWAY & AIR MIGRATION PATHWAY

5.1 Physical Conditions

The site is located at 5535 and 5491 Austell Powder Springs Road Austell, Cobb County, Georgia approximately $\frac{3}{4}$ mile northwest of downtown Austell (Refs. 5, 7 & 12). The site is comprised of four contiguous Cobb County Parcels (Tax Parcel Numbers 19128200450 and 19128100150 at 5535 Austell Powder Springs Road and 19128100160 and 19128200090 at 5491 Austell Powder Springs Road).

The site is situated adjacent and east/northeast of Austell Powder Springs Road across from Legion Field, south of Stovall Road, and west/northwest of Sweetwater Creek (Refs. 5, 7, 12 & 70). Various commercial establishments are found along Austell Powder Springs Road in the area of the site. The general area surrounding the site is a mixture of residential and commercial properties. Figure 2 depicts the general site location, approximate site boundaries and the site reference point.

Two metal buildings (Buildings A and B) associated with M&M Waste/M&M Recycling are located in the west central portion of the site (Refs. 5, 7 & 12). One approximately 10,000 square foot metal building (Building A) is situated approximately 75 feet east of Austell Powder Springs

Road. The smaller, approximately 6,000 square foot metal building (Building B) is situated approximately 40 feet northeast of Building A. More valuable non-ferrous metals are stored within Building A. Other metals are stored outside in the roll-off boxes located to the west of Building A.

Paved surfaces are limited to the areas just west of Buildings A and B and gravel surfaces are limited to the areas just north and east of Building A (Refs. 5 & 6). Manicured grass is located along Austell Powder Springs Road, Buildings A and B and the northwest portion of the site. Areas east and south of the metal buildings are covered with tall grass and shrubs. Forested areas are located along the entirety of the eastern boundary of the site, paralleling Sweetwater Creek and around Pond A, located near the northeastern boundary of the site. A swinging chain-linked fence gate is located at the entrance to the site. Approximately 40 feet of chain-linked fence extends from the gate towards the north and south along the western boundary of the site. No other fencing exists along the other boundaries of the site.

Overall site topography is moderately flat (Refs. 5, 7, 8 & 12). From the central portion of the site, there is a slight slope towards the southeast, south and southwest. Elevations at the site range from 900 to 880 feet above sea level (Ref. 8).

According to FEMA, the site is located in Flood Zone AE within a Special Flood Hazard Area, areas determined to be subject to inundation by the 1-percent annual chance flood (100-year flood), (Ref. 28).

Figure 3 depicts the nearby surrounding area, approximate site boundaries and the site reference point.

5.2 Soil Exposure Targets

5.2.1 Resident Population, On-Site Workers & Nearby Population

There are no schools or daycare facilities on adjacent land or within 200 feet of an area of suspected contamination (Refs. 1 – 5). Further, there are no residents on-site and there are no residences that are within 200 feet of an area of suspected contamination associated with the site (Refs. 1 – 6 & 24). There are three full-time workers employed by M&M Waste/M&M Recycling that work on-site five days a week (Refs. 5, 7, 12 & 44).

At the time of the 2000 U.S. Census of Population and Housing, there were 2,757 individuals who resided in 1,066 households that were located within one mile of the site reference point (Refs. 1 – 3, 6, 24 & 48).

Table 6 sets forth the population located within four miles of the site reference point per concentric distance category.

5.2.2 Terrestrial Sensitive Environments

The GDNR (Wildlife Resources Division) has not positively confirmed the occurrence of any terrestrial sensitive environment habitat located within the single quarter quadrant encompassing

the site (Refs. 5, 7, 12 & 66 – 68). Further, the GEPD did not observe on-site any terrestrial sensitive environment habitat during the May 14, 2019 on-site/off-site reconnaissance (Refs. 5 & 66 – 68).

It is recommended that any protected species habitats be documented during any future on-site reconnaissance(s) conducted as part of a SI.

5.2.3 Soil Exposure Resources

The beneficial use of land for the purposes of commercial agriculture, commercial silviculture or commercial livestock production (or grazing) was not positively identified to currently occur on an area of suspected surficial soil contamination considered attributable to the site (Refs. 1 – 3 & 5).

5.3 Air Migration Targets

The site-specific air TDL is limited to that area located within four miles of the designated site reference point (Ref. 1 – 3). Only those air targets located within the air TDL are considered. The site reference point and the air TDL are depicted on the well map included as Appendix A.

5.3.1 Target Population & Nearest Individual

At the time of the 2000 United States Census of Population and Housing, there were approximately 66,683 individuals who resided in 24,774 households that were located within four miles of the site reference point (Refs. 1 – 3, 6, 24 & 48). At that time, the census reported that there were 73 individuals who resided in 28 households that were located within ¼ mile of the site reference point.

Table 6 sets forth the population located within four miles of the site reference point per concentric distance category.

5.3.2 Aquatic and Terrestrial Sensitive Environments (Non-Wetlands)

Table 7 sets forth the scientific name, common name, federal legal status and state legal status for each of seven protected aquatic and/or terrestrial species reported by the GDNR (Wildlife Resources Division) to occur within quarter quadrants encompassing the air TDL (Refs. 1 – 3, 6, 24 & 66 – 68). Those protected species include the following:

- There is one Federal endangered or threatened species (one invertebrate);
- There are four State endangered or threatened species (one bird, two plants and one invertebrate); and
- There are two State rare or unusual species (one fish and one plant).

The GEPD did not positively confirm any habitat for the above seven protected aquatic and/or terrestrial species during the May 14, 2019 on-site/off-site reconnaissance (Refs. 5 & 66 – 68).

For the purposes of this PA, habitats for the seven protected aquatic and/or terrestrial species reported to occur within quarter quadrants encompassing the air TDL are considered to occur greater than ¼ to ½ mile of the site reference point. Further, species designated as Special Concern, Rare or Unusual by the State of Georgia are considered “particular areas, relatively small in size, important to the maintenance of unique biotic communities.”

It is recommended that any protected species habitats be documented during any future on-site reconnaissance(s) conducted as part of a SI.

5.3.3 Aquatic Sensitive Environments (Wetlands)

The United States Fish and Wildlife Service (National Wetlands Inventory) has positively confirmed the occurrence of the following aquatic sensitive environments (i.e., HRS qualifying wetlands) located within ½ mile of the site reference point (Refs. 1 – 3, 5, 8, 26 & 27):

- There are greater than 1 – 50 acres of HRS qualifying wetlands on-site;
- There are greater than 1 – 50 acres of HRS qualifying wetlands located within ¼ mile of the site reference point; and
- There are greater than 1 – 50 acres of HRS qualifying wetlands located greater than ¼ to ½ mile of the site reference point.

Appendix A depicts the site reference point and the extent of the air TDL.

5.3.4 Air Resources

The beneficial use of land use for the purposes of commercial agriculture or commercial silviculture was not positively confirmed to currently occur within ½ mile of any potential source of a hazardous substance attributable to the site (Ref. 1 – 3 & 5). However, Legion Field is located within ½ mile of an area of potential soil contamination associated with the site. For the purposes of this PA, Legion Field is considered a major/designated recreation area due to its regular use as a city park (Ref. 1 – 3, 5, 6 & 70).

5.4 Soil Exposure Pathway & Air Migration Pathway Conclusions

5.4.1 Soil Exposure Pathway Conclusions

In accordance with Section 3.5.1 of the PA Guidance (Pages 110 – 111), surficial soil contamination can be generally assumed at any site (Ref. 3). Further, Lead (detected as high as 10,200 mg/kg) and other hazardous substances were detected in soil during a December 2009 USEPA sampling event at levels significantly above background (i.e., analyte concentration is equal to or exceeds three times background concentration; or, is equal to or exceeds reporting limit

of background when not detected in background), (Refs. 1 – 3 & 24).

For the purposes of this PA, there are no individuals currently at a high risk of exposure to a hazardous substance at the site (i.e., there is no resident population) based upon the following (Refs. 1 – 3, 5, 7, 12 & 24):

- There are no known individuals occupying residences, attending school or daycare on or within 200 feet of an area of suspected contamination associated with the site;
- There are no known individuals located on adjacent land previously owned or leased by the site owner/operator;
- There is no known migration route from the site that might spread a hazardous substance near any residences, schools or daycare facilities;
- There are no known on-site or adjacent residents or students that have reported adverse health effects; and
- There are no neighboring properties that currently warrants sampling.

In conclusion, the Soil Exposure Pathway by itself does not warrant further HRS evaluation at this time.

5.4.2 Air Migration Pathway Conclusions

In accordance with Section 3.6.1 of the PA Guidance (page 126), a release of a hazardous substance to air is fundamentally different from a release of a hazardous substance to groundwater or surface water in that an air release is mostly transient in nature (Ref. 3). Due to rapid dispersion in the atmosphere, a release of a hazardous substance to air often can only be detected while the release is actually occurring. Accordingly, a release to air is only suspected if the release is likely to be detected during a sampling event.

For the purposes of this PA, a release of a hazardous substance from the site to air is not suspected based upon the following (Refs. 1 – 3, 5, 7, 12 & 24):

- No odors have currently been reported;
- No release of a hazardous substance to the air has been directly observed;
- There are no known reports of adverse health effects potentially resulting from the migration of a hazardous substance from the site to air; and
- There is no known analytical or circumstantial evidence suggesting a release of a hazardous substance from the site to air.

In conclusion, the Air Migration Pathway by itself does not warrant further HRS evaluation at this time.

6.0 SUMMARY AND CONCLUSIONS

In conclusion, the Groundwater Migration, Soil Exposure and Air Migration Pathways, when considered independently, do not warrant further HRS evaluation at this time. Similarly, the Drinking Water Threat of the Surface Water Migration Pathway, when considered independently, does not warrant further HRS evaluation at this time. However, the Human Food Chain and Environmental Threats of the Surface Water Migration Pathway, when considered independently, are candidates for further HRS evaluation.

LIST OF REFERENCES
Powder Springs Road Plating – Preliminary Assessment
(Austell, Cobb County, Georgia)

1. Federal Register, 40CFR Chapter 1 Subchapter J Part 300 Subpart L-Appendix A, Hazard Ranking System, Final Rule, December 14, 1990
2. U.S. Environmental Protection Agency, Hazardous Site Evaluation Division, Office of Solid Waste and Emergency Response, Hazard Ranking System Guidance Manual, EPA/540-R-92-026, November 1992
3. U.S. Environmental Protection Agency, Hazardous Site Evaluation Division, Office of Emergency and Remedial Response, Guidance for Performing Preliminary Assessments Under CERCLA, September 1991, EPA/540/G-91/013
4. Hardy, R., Geologist, Georgia Department of Natural Resources, Environmental Protection Division, October 29, 2009 Trip Report Documenting On-Site Reconnaissance Conducted October 23, 2009, Powder Springs Road Plating (formerly HW Enterprises, Inc./Peach Chrome Plating/HWB Enterprises, Austell, Cobb County, Georgia (**Selected Reference**))
5. Johnson, P., Geologist, Georgia Department of Natural Resources, Environmental Protection Division, June 6, 2019 Trip Report Documenting On-Site/Off-Site Reconnaissance Conducted May 14, 2019, Powder Springs Road Plating, Austell, Cobb County, Georgia (**Appendix B**)
6. Google Earth, Aerial Photographs, @ www.earth.google.com
7. Cobb County Board of Assessors, Cobb County, Georgia, Property Search, @ <https://www.cobbassessor.org/cobbga/search/commonsearch.aspx?mode=address>
8. U.S. Department of the Interior, Geologic Survey, 7.5-Minute Series Topographic Map, Austell Quadrangle, GA, Scale 1:24000, 2017 (**Selected Reference**)
9. Southeast Regional Climate Center, University of North Carolina at Chapel Hill, Historical Climate Summaries for Georgia, National Climatic Data Center Normals for the Douglasville, Georgia Station, Georgia, from 1940 to 2004, @ http://www.sercc.com/climateinfo/historical/historical_ga.html (**Selected Reference**)
10. Carter, R. and Stiles, H., Georgia Department of Natural Resources, Environmental Protection Division, Figure 2-Average Annual Rainfall and Run-Off in Georgia, 1941-1970, Hydrologic Atlas 9, 1983 (**Selected Reference**)
11. U.S. Environmental Protection Agency, Superfund Enterprise Management System, B&L Discount Auto, @ https://iaspub.epa.gov/enviro/SEMSQuery.get_report?pgm_sys_id=GAD984318634
12. Georgia Department of Natural Resources Complaint Tracking System, Complaint ID: 59791, October 23, 2009 (**Selected Reference**)
13. U.S. Environmental Protection Agency, Region 4, Initial POLROP Powder Springs Road Plating, Pollution Report No. 1, Site #B443, October 25, 2009 (**Selected Reference**)
14. U.S. Environmental Protection Agency, Region 4, Powder Springs Road Plating, Pollution Report No. 2, October 25, 2009 (**Selected Reference**)
15. U.S. Environmental Protection Agency, Region 4, Response On-Going, Powder Springs Road Plating, Pollution Report No. 3, October 25, 2009 (**Selected Reference**)
16. U.S. Environmental Protection Agency, Region 4, Response On-Going, Powder Springs Road Plating, Pollution Report No. 4, October 26, 2009 (**Selected Reference**)
17. U.S. Environmental Protection Agency, Region 4, Response On-Going, Powder Springs Road Plating, Pollution Report No. 5, December 2, 2009 (**Selected Reference**)
18. U.S. Environmental Protection Agency, Region 4, Response On-Going, Powder Springs Road Plating, Pollution Report No. 6, December 4, 2009 (**Selected Reference**)

LIST OF REFERENCES
Powder Springs Road Plating – Preliminary Assessment
(Austell, Cobb County, Georgia)

19. U.S. Environmental Protection Agency, Region 4, Transition to Removal, Powder Springs Road Plating, Pollution Report No. 7, Site # B443, December 14, 2009 (Selected Reference)
20. U.S. Environmental Protection Agency, Region 4, Removal Action Pending, Powder Springs Road Plating, Pollution Report No. 8, Site # B443, January 22, 2010 (Selected Reference)
21. U.S. Environmental Protection Agency, Region 4, Transition from ER to Removal, Powder Springs Road Plating, Pollution Report No. 9, Site # B443, June 6, 2010 (Selected Reference)
22. U.S. Environmental Protection Agency, Region 4, Initial Site Work, Powder Springs Road Plating, Pollution Report No. 10, Site # B443, June 4, 2010 (Selected Reference)
23. U.S. Environmental Protection Agency, Region 4, Final POLROP, Powder Springs Road Plating, Pollution Report No. 11, Site # B443, September 1, 2010 (Selected Reference)
24. TetraTech, Final Emergency Response Letter Report, Powder Springs Road Plating Response, August 25, 2010
25. Digital Map Store, Georgia County Map – Georgia Map, @ <https://www.digital-topo-maps.com/county-map/georgia.shtml>
26. Georgia Department of Natural Resources, Environmental Protection Division, Chattahoochee River Basin Management Plan, 1997
27. U.S. Fish and Wildlife Service, National Wetlands Inventory, Wetlands Digital Data – Wetlands Mapper, @ <https://www.fws.gov/wetlands/Data/Mapper.html>
28. Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Map, City of Austell, Georgia, Panel 184 of 252, Map Number 13067C0184H, Effective Date March 4, 2013
29. U.S. Geological Survey, National Water Information System, Surface Water Annual Statistics for Georgia, Gauging Station 02336910, Sweetwater Creek US RR Bridge at Austell, GA, 2011 – 2018 (Selected Reference)
30. U.S. Geological Survey, National Water Information System, Surface Water Annual Statistics for Georgia, Gauging Station 02337040, Sweetwater Creek Below Austell, GA, 2004 – 2018 (Selected Reference)
31. State of Georgia Rules for Water Quality Control, Section 391-3-6-.03(14), Specific Water Use Classifications and Water Quality Standards – Chattahoochee River Basin, Sweetwater Creek, @ http://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/EPA_Approved_WQS_May_1_2015.pdf
32. Turner, J., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number CS0670002, Permit to Operate A Public Community Water System, Issued April 23, 2014 to the Cobb County – Marietta Water Authority, Marietta, Cobb County, Georgia (Selected Reference)
33. Turner, J., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number CP0670003, Permit to Operate A Public Community Water System, Issued April 23, 2014 to the Cobb County Board of Commissioners, Marietta, Cobb County, Georgia (Selected Reference)
34. Turner, J., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number CP0670001, Permit to Operate A Public Community Water System, Issued April 8, 2015 to City of Austell, Austell, Cobb County, Georgia (Selected Reference)

LIST OF REFERENCES
Powder Springs Road Plating – Preliminary Assessment
(Austell, Cobb County, Georgia)

35. Turner, J., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number CP0670006, Permit to Operate A Public Community Water System, Issued July 10, 2013 to the City of Powder Springs, Powder Springs, Cobb County, Georgia (Selected Reference)
36. Cobb County Soil and Water Conservation District, City of Austell Community Garden and Education Center, @ <https://www.cobbswcd.org/programs/>
37. Dunn, R., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number CS1210003, Permit to Operate A Public Community Water System, Issued December 13, 2018 to the City of East Point, East Point, Fulton County, Georgia (Selected Reference)
38. Turner, J., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number 048-1214-03, Permit to Withdraw, Divert or Impound Surface Water, Issued November 29, 2012 to the City of East Point, East Point, Fulton County, Georgia (Selected Reference)
39. Mattox, M., Treatment Plant Superintendent, City of East Point Water and Sewer Division, East Point, Fulton County, Georgia, June 12, 2019 Record of Communication Documenting June 12, 2019 Phone Conversation with Peter Johnson, Geologist, Georgia Department of Natural Resources, Environmental Protection Division RE: The City of East Point Water System Source, Source Contribution and Population Served (Appendix C)
40. Eubanks, L., Water Quality Coordinator, City of Hapeville Public Works, Hapeville, Fulton County, Georgia, June 17, 2019 Record of Communication Documenting June 17, 2019 Phone Conversation with Peter Johnson, Geologist, Georgia Department of Natural Resources, Environmental Protection Division RE: The City of Hapeville Public Water Supply Source, Source Contribution and Population Served (Appendix D)
41. Kellett, R., Water Operator, City of Powder Springs Public Works, Powder Springs, Cobb County, Georgia, June 17, 2019 Record of Communication Documenting June 17, 2019 Phone Conversation with Peter Johnson, Geologist, Georgia Department of Natural Resources, Environmental Protection Division RE: The City of Powder Springs Water Supply Source, Source Contribution and Population Served (Appendix E)
42. Herrera, J., Office Manager, City of Austell Public Works, Austell, Cobb County, Georgia, June 12 and June 14, 2019 Email Correspondences with Peter Johnson, Geologist, Georgia Department of Natural Resources, Environmental Protection Division RE: The City of Austell Public Water Supply Source, Source Contribution and Population Served (Appendix F)
43. Lee, P., Compliance Officer, City of College Park Water and Sewer Division, College Park, Fulton County, Georgia, December 17, 2018 Record of Communication Documenting December 14, 2018 Phone Conversation with Peter Johnson, Geologist, Georgia Department of Natural Resources, Environmental Protection Division RE: The City of East Point and City of College Park Water System Sources, Source Contributions and Population Served (Appendix G)
44. Weinstein, S., Owner, M&M Waste/M&M Recycling, Austell, Cobb County, Georgia, June 18, 2019 Record of Communication Documenting June 18, 2019 Phone Conversation with Peter Johnson, Geologist, Georgia Department of Natural Resources, Environmental Protection Division RE: Stormwater Permit Data and/or Reporting and Total Number of On-site Employees of M&M Waste/M&M Recycling (Appendix H)

LIST OF REFERENCES
Powder Springs Road Plating – Preliminary Assessment
(Austell, Cobb County, Georgia)

45. Georgia Department of Natural Resources, Environmental Protection Division, Water Withdrawal, Non-Farm Surface Water Withdrawal Permit List, @ <https://epd.georgia.gov/watershed-protection-branch-lists>
46. Georgia Department of Natural Resources, Geographical Information System, 4-Mile Radius Well Map, Sources: Georgia DNR HSRP Field Surveys (2016); USGS Digital Raster Graphic (DRG), USGS Groundwater Site Inventory (**Appendix A**)
47. U.S. Bureau of the Census, Census of Population and Housing, 1990: Summary Tape File 3 on CD-ROM Georgia [machine-readable data files] / prepared by the Bureau of the Census – Washington, D.C.: The Bureau [producer and distributor], 1992 (**Appendix I**)
48. 27. U.S. Bureau of the Census, Census of Population and Housing, 2000: Summary Tape File 3 on CD-ROM Georgia [machine-readable data files] / prepared by the Bureau of the Census – Washington, D.C.: The Bureau [producer and distributor], 2002 (**Appendix J**)
49. M&M Waste, @ <https://www.mandmwaste.com/construction-dumpster-rental-in-atlanta-rent-construction-container-marietta-roswell-p-65.html/scrap-metal-recycling-in-atlanta-ga-p-60.html>
50. Dunn, R., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number GAR050000, Permit for Stormwater Discharges Associated with Industrial Activity, Authorization to Discharge Under the National Pollutant Discharge Elimination System, June 1, 2017, @ https://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/FinalSigned2017IGP-20170306.pdf
51. United States Environmental Protection Agency, Region 4, Executive Summary: Powder Springs Road Site, Time Critical Removal Action, June 10, 2010
52. Georgia Environmental Protection Division, Industrial Pretreatment, @ <https://epd.georgia.gov/industrial-pretreatment>
53. United States Environmental Protection Agency, Electroplating Operations – Additional Information, @ https://archive.epa.gov/airquality/community/web/html/electroplating_addl_info.html
54. U.S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health, April 1975, @ <https://www.cdc.gov/niosh/docs/75-145/pdfs/75-145.pdf?id=10.26616/NIOSH PUB75145>
55. National Oceanic and Atmospheric Administration, National Weather Service, Atlanta Flood 5th Anniversary, September 14 – 22, 2009, @ https://www.weather.gov/ffc/atlanta_floods_anniv
56. United States Environmental Protection Agency, Region 4, Memorandum, Data Evaluation, Powder Springs Road Plating, Austell, Cobb County, Georgia, December 28, 2009
57. Ceron, L., United States Environmental Protection Agency, Region 4, Emergency Response and Removal Branch, Action Memorandum Request for Ceiling Increase for Removal Action at the Powder Springs Road Site, Austell, Cobb County, Georgia to Franklin E. Hill, United States Environmental Protection Agency, Region 4, Director
58. Cressler, C.W., Georgia Department of Natural Resources, Earth and Water Division, The Geological Survey of Georgia, Geology and Groundwater Resources of Gordon, Whitfield, and Murray Counties, Georgia, 1974

LIST OF REFERENCES
Powder Springs Road Plating – Preliminary Assessment
(Austell, Cobb County, Georgia)

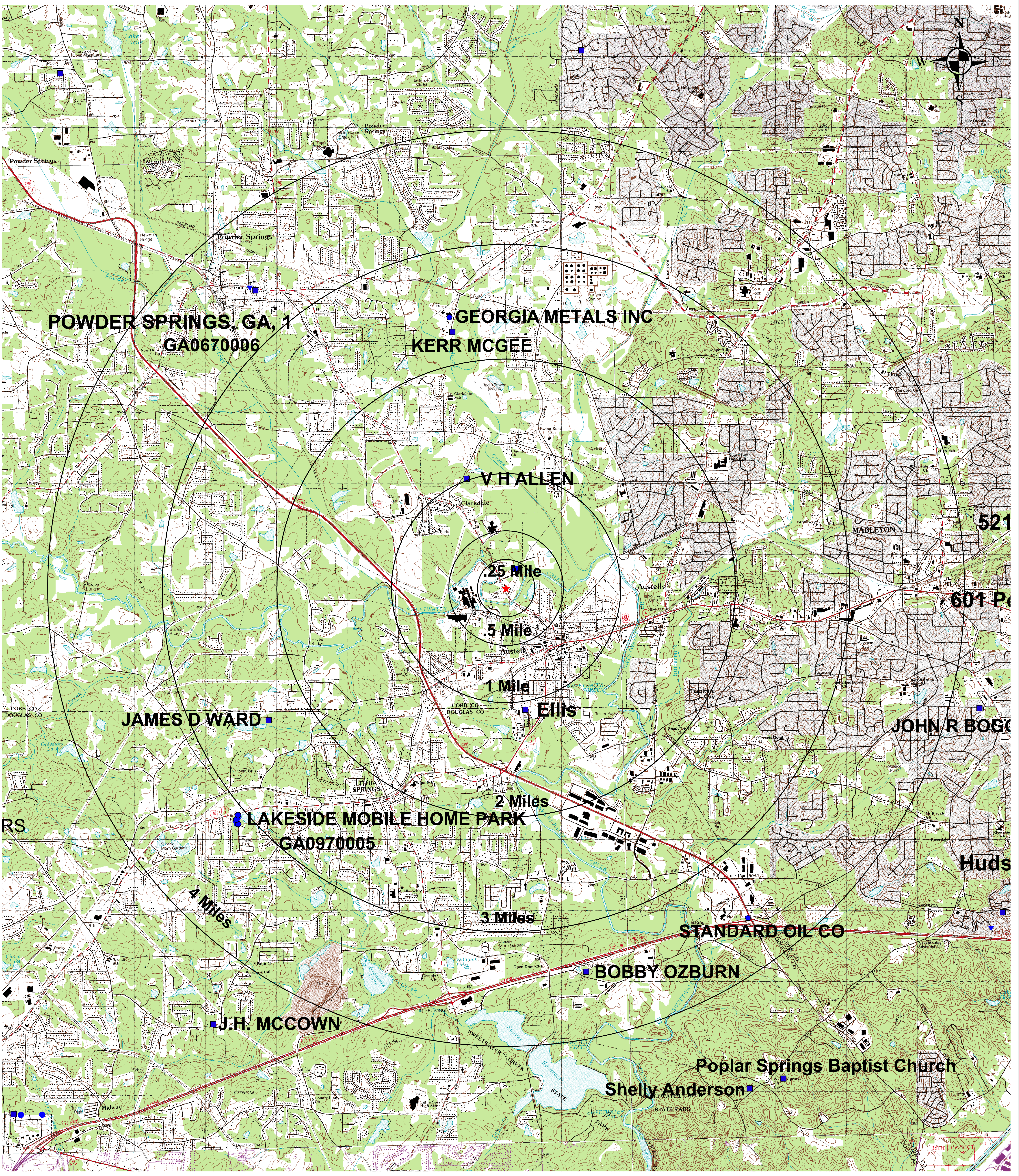
59. Donahue, J.C. and Kibler, S.R., 2007, Ground-Water Quality in the Piedmont/ Blue Ridge Unconfined Aquifer System of Georgia, Georgia Department of Natural Resources, Environmental Protection Division
60. Leeth, D.C., 2007, Ground-Water Conditions in Georgia, 2005, Georgia Department of Natural Resources, Geologic Survey
61. M and M Recycling @ <http://www.mandmrecycling.com/>
62. Georgia Department of Natural Resources, Environmental Protection Division, Watershed Protection Branch, Drinking Water/Public Water System Permit List, Revised Periodically, @ <https://epd.georgia.gov/watershed-protection-branch-lists>
63. United States Environmental Protection Agency, Safe Drinking Water Information System, Georgia, @ <https://www.epa.gov/enviro/sdwis-overview>
64. U.S. Environmental Protection Agency, Superfund Chemical Data Matrix Query, Updated March 2018, @ <https://www.epa.gov/superfund/superfund-chemical-data-matrix-scdm-query>
65. American Community Gardening Association, I. T. and Lodemia Terrell Community Garden and Educational Center, @ <https://communitygarden.org/find-a-garden/gardens/i-t-and-lodemia-terrell-community-garden-and-educational-center/>
66. City of Austell, Georgia, City Departments, Public Works, Community Garden, I. T. and Lodemia Terrell Community Garden and Educational Center, and Nature Trail
67. Code of Federal Regulations, Title 50 (Wildlife and Fisheries), Chapter I (United States Fish and Wildlife Services, Department of the Interior), Part 17 (Endangered and Threatened Wildlife and Plants), Subpart B (Lists), Section 17.11 (Endangered and Threatened Wildlife) and Section 17.12 (Endangered and Threatened Plants), @ <https://www.law.cornell.edu/cfr/text/50/part-17>
68. Georgia Rule Chapter 391-4-10-.09, Protection of Endangered, Threatened, Rare or Unusual Species, @ <http://rules.sos.state.ga.us/gac/391-4-10>
69. Georgia Department of Natural Resources, Wildlife Resources Division, Georgia Rare Species and Natural Communities Information, Element Occurrences, Chattahoochee River, Lower North: Sweetwater Creek, Chattahoochee River Lower North HUC10 Watershed
70. Pace Analytica Services, LLC, Analytical Results, Project: MMW.AGA-SWT18, April 6, 2018
71. The City of Austell, Georgia, Parks and Recreation, Park Location, Legion Field, @ https://www.austellga.gov/index.asp?Type=B_LOC&SEC=%7BFF45A936-AEA5-4D57-A5BC-BB328382CD0D%7D&DE=%7B3EA40F0F-4BDF-4593-8E8F-DABCD2797023%7D

APPENDICES

APPENDIX A

Four Mile Radius Map Depicting Target Distance Limit for Groundwater & Air Migration Pathways

Powder Springs Road Plating
(Austell, Cobb County, Georgia)



- Industrial
- Domestic Well
- Commercial
- Municipal/Public Supply Well (Permit ID)



Source: USGS DRG, USGS Groundwater Site Inventory, GA DNR HSRP Field Collected Wells (2016)

APPENDIX A: Four Mile Radius Map Depicting Target Distance Limit
for Groundwater & Air Migration Pathways (Refs. 1 - 3, 6, 24 & 46)

APPENDIX B

**GEPD Trip Report Documenting On-Site/Off-Site Reconnaissance Conducted
May 14, 2019**

June 6, 2019

TRIP REPORT

SITE NAME & LOCATION: Powder Springs Road Plating
Austell, Cobb County, Georgia

TRIP BY: Peter Johnson, Geologist
Georgia Environmental Protection Division (GEPD)
Land Protection Branch (LPB)
Response and Remediation Program (RRP)

ACCOMPANIED BY: Andrew Taft, CERCLA Site Assessment Coordinator
GEPD, LPB, RRP

DATE(S) OF TRIP: May 14, 2019

PERSONS CONTACTED:

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Edward & Carolyn Newell, Residential Property Owners
3014 Stovall Road
Austell, Georgia 30106

Rusty Elmore, Employee
Rick Rakestraw Used Cars
5421 Austell Powder Springs Road
Austell, Georgia 30106

REFERENCE: Preliminary Assessment (PA)
On-Site/Off-Site Reconnaissance

PURPOSE:

Purposes of the reconnaissance included the following:

- Collect certain information necessary to complete a Preliminary Assessment (PA) for the site in accordance with the following documents:
 - Federal Register, 40 CFR Chapter 1, Subchapter J, Part 300, Subpart L – Appendix A, *Hazard Ranking System*, Final Rule, December 14, 1990 (Ref. 1);
 - U.S. Environmental Protection Agency, *Hazard Ranking System Guidance Manual*, Office of Solid Waste and Emergency Response, Publication 9345.1-07, PB92-96337, EPA 540-R-92-026, November 1992 (Ref. 2); and
 - U.S. Environmental Protection Agency, *Guidance for Performing Preliminary Assessments under CERCLA*, Office of Emergency and Remedial Response, Washington, DC 20460, EPA/540/G-91/013, September 1991 (Ref. 3).
- Reconnoiter the site and site generated run-off routes, identify the approximate location of the USEPA 2009/2010 removal action where a former electroplating facility once operated and determine physical accessibility of future potential on-site surface soil and subsurface soil sample station locations and on-site/off-site surface water and sediment sample station locations;
- Follow accessible portions of the site generated run-off route extending from the site to Sweetwater Creek; and
- Conduct domestic drinking water well survey within ½ mile of any site boundary and attempt to acquire pertinent well details of any identified wells.

COMMENTS:

The following comments document areas visited, observations noted and interviews conducted during the on-site/off-site reconnaissance:

On-Site Reconnaissance:

- Access to the site was gained by GEPD personnel via Austell Powder Springs Road, just north of a bridge that passes over Sweetwater Creek. The site is located on the eastern edge of Austell Powder Springs Road (See Attachment A: Photograph 01 & 23 of 26);
- The site was bounded by an approximately 1.5-acre predominantly empty gravel lot to the north, Sweetwater Creek to the east and south and Austell Powder Springs Road to the west. Legion Field, a city park with baseball fields, a playground and pavilion was observed just to the west of the site, across the street of Austell Powder Springs Road;
- An open swinging chain-linked fence gate was observed at the entrance to the site. A total of approximately 40 feet of chain-linked fence extended from the gate towards the north and

south along the western boundary of the site. No other fencing or barrier was observed along the other boundaries of the site (See Attachment A: Photograph 01 of 26);

- Two metal buildings were observed on-site, just east of the entrance. One approximately 10,000 square foot metal building (hereinafter referred to as “Building A”) was observed approximately 75 feet east of Austell powder Springs Road (See Attachment A: Photograph 02 of 26). The smaller, approximately 6,000 square foot metal building (hereinafter referred to as “Building B”) was observed approximately 40 feet northeast of Building A (See Attachment A: Photographs 03 & 10 of 26). A gravel drive extending from the front (northwest) of the buildings to the back (southeast) of Building A transected the two buildings;
- GEPD toured Building A and Building B with the site owner and V.P. of Sales (Ms. Susan Weinstein and Mr. Ryan Weinstein, respectively). Ms. Weinstein provided the following information:
 - Building A is used for storing more valuable non-ferrous metals. Building B is used as an indoor soccer field;
 - Powder Springs Industrial, LLC purchased the property and began the operation of M&M Waste/M&M Recycling in 2007. The property was vacant and the buildings empty when their operation began. The property and existing buildings use prior to their purchase of the property was unknown;
 - Powder Springs Industrial, LLC purchased the northwestern-most portion of the site where the former electroplating facility was located a few years following the flood of 2009 and the USEPA demolition and excavation of that area; and
 - Ms. Weinstein believes they are inspected on a regular basis for stormwater flow and that the consultant they use, Conversion Technology, Inc., collects samples quarterly for “sheet flow;”
- Mr. Weinstein provided the following information:
 - M&M Waste/M&M Recycling business recycles metals only. Metals are dropped off into the on-site roll-off boxes and are taken to off-site larger scrap yards, usually the day after drop-off;
 - Plumbers, electricians, and homeowners are their common customers and most metals received are from households. The customers are paid by the pound;
 - The site and nearby areas flooded in 2009. Materials from the upstream paper mill jammed and accumulated at the Austell Powder Springs Road bridge, which likely exacerbated the flooding. Most of the materials from the on-site buildings, including the buildings utilized by the former electroplater, were swept away by the flooding water; and
 - The used roll-off boxes stored behind Building A are rented and picked up and

dropped off by local dump trucks;

- Small pieces of scrap metal organized in multiple containers, aluminum cans and various other pieces of scrap metal were observed within Building A (See Attachment A: Photographs 07 – 09 of 26). An indoor soccer field was observed within the entirety of Building B (See Attachment A: Photograph 11 of 26);
- Pieces of scrap metal and metal appliances were observed within multiple roll-off boxes located on the paved area northwest of the Building A (See Attachment A: Photographs 03 & 04 of 26). Scrap metal pieces and piping were being unloaded from a truck and pull-behind trailer and placed into a roll-off box at the time of the reconnaissance (See Attachment A: Photograph 03 of 26);
- The site was predominantly topographically level. A slight slope towards the southeast, south and southwest was observed beginning from the central portion of the site;
- Mowed grass was observed in the areas near Austell Powder Springs Road, the on-site buildings and the northwest portion of the site (See Attachment A: Photographs 05, 06 & 14 of 26). Areas east and south of the metal buildings were unmaintained and were covered with tall grass and shrubs. Forested areas were observed along the entirety of the eastern boundary of the site, paralleling Sweetwater Creek and around an approximate 1-acre on-site pond, near the northeastern boundary of the site (See Attachment A: Photograph 18 of 26);
- An area barren of grass and areas of stressed vegetation (approximately eight feet by 20 feet) were observed near the northwestern-most portion of the site, within the approximate area where the USEPA 2009/2010 removal action was conducted (See Attachment A: Photograph 14 of 260);
- Well-defined drainage ditches were observed to the northwest of Building A, along the northwestern and northern boundaries of the site, just east of Austell Powder Springs Road (See Attachment A: Photographs 05, 06 & 16 of 26). The ditch along the northwestern boundary slopes towards the north and intersects with the ditch along the northern boundary, which slopes towards the east/northeast and ultimately discharges to an approximate 1-acre on-site pond (hereinafter referred to as “Discharge Point A” located on the northeast portion of the site (See Attachment A: Photographs 16 & 17 of 26). A drainage ditch was observed extending from the northeastern-most paved area to the ditch running along the northern boundary of the site (See Attachment A: Photograph 15 of 26). No water was observed within the drainage ditches at the time of the site reconnaissance. Site-generated run-off from areas north and northwest of the metal buildings would flow through the ditches and ultimately discharge to the pond (See Attachment B: Figure 1);
- An approximate 1-acre pond was observed near the northeastern boundary of the site. Multiple turtles and geese were observed within the pond. The pond was encompassed by tall grass, shrubs and trees (See Attachment A: Photograph 18 of 26). An approximately 10-foot-long dam comprised of sticks and logs was observed on the northeastern end of the pond (See Attachment A: Photograph 19 of 26 and Attachment B: Figure 1). An approximately 25-foot-long well-defined drainage ditch was observed extending from the dam to Sweetwater Creek (See Attachment A: Photograph 20 of 26). No water was observed within

the drainage ditch at the time of the site reconnaissance;

- A well-defined drainage ditch was observed to the southwest of Building A along the western boundary of the site, just east of Austell Powder Springs Road. The ditch along the southwestern boundary slopes towards Sweetwater Creek to the south/southeast, meanders towards the northeast through low-lying areas paralleling Sweetwater Creek and ultimately discharges to Sweetwater Creek at a point approximately 300 feet north (downstream) of the Austell Powder Springs Road bridge (See Attachment A: Photographs 21 & 22 of 26 and Attachment B: Figure 1); and
- A discernible flow towards the north in Sweetwater Creek was observed when reconnoitering the eastern boundary of the site. A narrow, maintained area/path was observed approximately 10 feet west and paralleling Sweetwater Creek. Large concrete manholes protruding upward from the ground were observed intermittently along the maintained area/path. Turtles and fish were observed within Sweetwater Creek downstream of the Austell Powder Springs Road bridge.

Off-Site Reconnaissance:

- A domestic drinking water well survey was conducted for residential areas located within approximately ½ mile of any site boundary. No structure similar in appearance to a well house was observed along Stovall Road, Camellia Trail, Cureton Drive, Austell Powder Springs Road (between Cureton Drive and Broad Street), Owens Drive, Pratt Street, Landers Street, Broad Street, Joe Street and Edith Street;
- GEPD personnel spoke with the residential property owners (Mr. and Ms. Newell) at 3014 Stovall Road, Austell, Georgia, approximately 400 feet north of the site. The residents provided the following information:
 - Their drinking water is supplied by the local municipality;
 - They do not have a well on their property and are not aware of any wells belonging to any residence on Stovall Road or in the nearby area; and
 - Water flooded their property in 2009. At the peak of the flood, the water level reached the ceilings of their home;
- GEPD personnel spoke with an employee of a used car lot (Rusty Elmore) at 5421 Austell Powder Springs Road, Austell, Georgia. Mr. Elmore Provided the following information:
 - He has fished Sweetwater Creek for over 20 years;
 - He predominantly fishes the section of Sweetwater Creek upstream of the Austell Powder Springs Road bridge, immediately upstream of the site; and
 - He catches brim, blue catfish, crappie and bass and often consumes his catch;
- Four fishing lure wrappers were observed along the northern bank of Sweetwater Creek,

approximately 1,750 feet downstream of the Austell Powder Springs Road bridge and approximately 700 feet downstream of where site-generated run-off enters Sweetwater Creek at the most downstream discharge point (See Attachment A: Photographs 24 & 25 of 26);

- GEPD observed a wooden patio/deck and a trail meandering through a wooded area, partially situated along Sweetwater Creek, within the I.T. and Lodemia Terrell Community Garden, Educational Center and Nature Trail, located approximately 750 feet east of the site; and
- One Styrofoam minnow bucket was observed off a trail within the I.T. and Lodemia Terrell Community Garden, Educational Center and Nature Trail. The minnow bucket was observed approximately 20 feet south of Sweetwater Creek, approximately 2,700 feet downstream of the Austell Powder Springs Road bridge and approximately 1,650 feet downstream of where site-generated run-off enters Sweetwater Creek at the most downstream discharge point (See Attachment A: Photograph 26 of 26).

RECOMMENDATIONS & FOLLOW-UP REQUIRED:

Utilize documentation contained herein (in conjunction with analytical results and additional information) to complete a PA report.

ATTACHMENTS:

A: Photographs (26 Total)

B: Figure1

C: Logbook Documentation

Logbook 1 of 2

Johnson Logbook, Pages 113 – 118

Logbook 2 of 2

Taft Logbook, Pages 12 – 14

REVIEWED BY: Andrew S. Taft



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:55 AM

Photo Number / Direction Facing: 01 of 26 / South/Southeast

Photographer: Peter Johnson

Photo Description:

M&M Waste/Recycling sign and entrance located along the east side of Austell Powder Springs Road.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:56 AM

Photo Number / Direction Facing: 02 of 26 / Southeast

Photographer: Peter Johnson

Photo Description:

One approximately 9,000 square foot metal building (hereinafter referred to as “Building A”) was observed approximately 75 east of Austell Powder Springs Road.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:56 AM

Photo Number / Direction Facing: 03 of 26 / East/Southeast

Photographer: Peter Johnson

Photo Description:

Building A (right side of photograph) and a smaller, approximately 600 square foot metal building (hereinafter referred to as “Building B”) was observed approximately 40 feet northeast of Building A. A small truck and trailer are shown near the central portion of the photograph near the smaller roll-off boxes carrying a load for metal recycling drop-off. The larger roll-off boxes used for holding larger metals are located on the left side of the photograph.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:56 AM

Photo Number / Direction Facing: 04 of 26 / East

Photographer: Peter Johnson

Photo Description:

Roll-off boxes used to hold larger pieces of scrap metal positioned along the northern edge of the paved on-site parking area, approximately 100 feet northwest of Building A.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:56 AM

Photo Number / Direction Facing: 05 of 26 / North/Northwest

Photographer: Peter Johnson

Photo Description:

A view of the northwestern edge of the site with Austell Powder Springs Road on the left side. Denser grass with small brush outlines a ditch that extends from the northern edge of the paved on-site parking area and runs south to north.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:56 AM

Photo Number / Direction Facing: 06 of 26 / North

Photographer: Peter Johnson

Photo Description:

The USEPA 2009/2010 Removal Action was conducted in the approximate area of the freshly mowed area near the central portion of the photograph, just east of the ditch and north of the roll-off boxes.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:57 AM

Photo Number / Direction Facing: 07 of 26 / Southeast

Photographer: Peter Johnson

Photo Description:

Various metals organized in multiple containers within the western portion of the interior of Building A.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 9:57 AM

Photo Number / Direction Facing: 08 of 26 / East/Northeast

Photographer: Peter Johnson

Photo Description:

Various metals, including aluminum cans within the central and eastern portion of the interior Building A.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 12:23 AM

Photo Number / Direction Facing: 09 of 26 / East

Photographer: Peter Johnson

Photo Description:

Various metals, including aluminum cans and scrap metal within the central and eastern portion of the interior of Building A.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:02 AM

Photo Number / Direction Facing: 10 of 26 / East

Photographer: Peter Johnson

Photo Description:

An exterior view of Building B.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:07 AM

Photo Number / Direction Facing: 11 of 26 / Northeast

Photographer: Peter Johnson

Photo Description:

An indoor soccer field located within Building B.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:08 AM

Photo Number / Direction Facing: 12 of 26 / Southeast

Photographer: Peter Johnson

Photo Description:

Roll-off boxes located to the southeast of the gravel parking area, approximately 75 feet south/southeast of Building A.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:08 AM

Photo Number / Direction Facing: 13 of 26 / West

Photographer: Peter Johnson

Photo Description:

Roll-off boxes and one dumpster stored just south of Building A (background), north of a gravel parking area.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:45 AM

Photo Number / Direction Facing: 14 of 26 / Southeast

Photographer: Peter Johnson

Photo Description:

A small area barren of grass shown in the left central portion of the photograph. Building B and Building A are in the background of the photograph on the left and right, respectively.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:52 AM

Photo Number / Direction Facing: 15 of 26 / South

Photographer: Peter Johnson

Photo Description:

A small ditch extending from the northeastern-most portion of the paved on-site parking area towards the northeast is depicted from the central portion to the central foreground portion of the photograph.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:53 AM

Photo Number / Direction Facing: 16 of 26 / West

Photographer: Peter Johnson

Photo Description:

A ditch located along the northern boundary of the site running west to east is depicted near the central portion to the central foreground portion of the photograph.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 10:56 AM

Photo Number / Direction Facing: 17 of 26 / Southeast

Photographer: Peter Johnson

Photo Description:

The point at which the ditch running along the northern boundary of the site discharges to the northwest side of the on-site pond.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 11:05 AM

Photo Number / Direction Facing: 18 of 26 / East

Photographer: Peter Johnson

Photo Description:

A large pond located on the northeastern portion of the site.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 11:21 AM

Photo Number / Direction Facing: 19 of 26 / West

Photographer: Peter Johnson

Photo Description:

A dam comprised of sticks and logs located on the northeastern end of the on-site pond.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 11:21 AM

Photo Number / Direction Facing: 20 of 26 / Northeast

Photographer: Peter Johnson

Photo Description:

Depicted near the lower left to central portion of the photograph, the point at which a small ditch extending from the dam discharges to Sweetwater Creek.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 11:53 AM

Photo Number / Direction Facing: 21 of 26 / East

Photographer: Peter Johnson

Photo Description:

Depicted near the lower central portion of the photograph, the point at which site generated run-off from the south and southwestern portion of the site discharges to Sweetwater Creek.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 11:54 AM

Photo Number / Direction Facing: 22 of 26 / Northeast

Photographer: Peter Johnson

Photo Description:

An area of depression and stagnant water located just north of Sweetwater Creek. Site generated run-off from the south and southwestern portion of the site flows through this drainage area within a series of ditches and depressions.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 12:09 PM

Photo Number / Direction Facing: 23 of 26 / East/Northeast

Photographer: Peter Johnson

Photo Description:

"Recycling" depicted on the western side of the large metal warehouse building with Austell Powder Springs Road in the foreground. The entrance to the site is located near the sign on the left-central portion of the photograph.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 1:21 PM

Photo Number / Direction Facing: 24 of 26 / Down

Photographer: Peter Johnson

Photo Description:

A fishing lure wrapper observed along the northern bank of Sweetwater Creek, approximately 1,750 feet downstream of the Austell Powder Springs Road bridge and approximately 700 feet downstream of where site-generated run-off enters Sweetwater Creek at the most downstream discharge point.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 1:21 PM

Photo Number / Direction Facing: 25 of 26 / Down

Photographer: Peter Johnson

Photo Description:

A fishing lure wrapper observed along the northern bank of Sweetwater Creek, approximately 1,750 feet downstream of the Austell Powder Springs Road bridge and approximately 700 feet downstream of where site-generated run-off enters Sweetwater Creek at the most downstream discharge point.



Site Name: Powder Springs Road Plating

Site Location: Austell, Cobb County, Georgia

Photo Date / Photo Time: May 14, 2019 / 1:54 PM

Photo Number / Direction Facing: 26 of 26 / Down

Photographer: Peter Johnson

Photo Description:

A Styrofoam minnow bucket observed within the I.T. and Lodemia Terrell Community Garden, Educational Center and Nature Trail approximately 20 feet south of Sweetwater Creek, approximately 2,700 feet downstream of the Austell Powder Springs Road bridge and approximately 1,650 feet downstream of where site-generated run-off enters Sweetwater Creek at the most downstream discharge point.

Powder Springs Road Plating (Austell, Cobb County, Georgia)



Notes:

1. — = Approximate site boundaries.
2. — = Site Generated Run-off Drainage Route #1.
3. — = Site Generated Run-off Drainage Route #2.
4. — = Site Generated Run-off Drainage Route #3.
5. ● = Approximate discharge from Drainage Route #1 to on-site pond.
6. ● = Approximate discharge from Drainage Route #2 to Sweetwater Creek.
7. ● = Approximate discharge from Drainage Route #3 to Sweetwater Creek.
8. → = Surface water flow direction.
9. → = Site generated run-off water flow direction.
10. GEPD = Georgia Environmental Protection Division

**FIGURE 1: Water Features and Site Generated Run-Off
Routes Observed During the GEPD May 14, 2019
Site Reconnaissance**

3/14/2019 Klonda Estate

14:30 Spoke with Holly Sanders
(478-955-2610) @ 776 Brock Rd.
Says we can sample well.
Spigot in front yard of well not
located.

15:00 EPP Personnel ^{drive} back to
EPP office.

3/14/2019

[Signature]

3/14/2019 Powder Springs Rd Plating

09:30 Andy T. + Peter J. arrive on
site. Met Ryan Weinstein +
Ms. Weinstein. Toured with them.

- Most metals received are from
households. Only receive metals.
Recycling drop-off center. Take
the metals to bigger scrap yards.

- Building stores non-ferrous, more
valuable metals.

- Started M&M Recycling in 2007.
Unknown what was here before.
Purchased it as empty warehouse.

- Have a stormwater permit/
Sample surface water runoff
Conversion Consultants collect
samples + send to EPO.

^{empty}
- Dumpsters at back part of M&M are
used/picked up by local dumpster
They rent the dumpsters.

[Signature] 5/14/18

5/14/2019 Powder Springs Rd Platting

10:45 Andy T. + Peter J. walked site. Observed bare spot near NW corner of the site $\approx 40'$ East of telephone pole adjacent to Austell Powder Springs Rd. Stressed vegetation observed at NW corner of site.

11:00 followed ditch that runs along northern portion of site, flows West to East, to large pond located on NE/E portion of site. located the point @ where the ditch discharges to Pond (PPE) @ $N 33.82096^\circ$

$W 084.64080^\circ$, $\pm 16'$

See 11/18 for drawing of site's drainage portion

11:05 Observed large Pond on East side of site. Observed several turtles and a family of Geese in pond.

11:20 Observed Pond dammed up, not currently flowing into Sweetwater Creek. Dam is located approximately 20' west of Sweetwater Creek. Ditch from Dammed portion of pond flows downstream of

[Signature] 5/14/19

5/14/2019

to Sweetwater Creek and discharges to Sweetwater Creek @ PPE #2:

$N 33.82123^\circ$

$W 084.63949^\circ \pm 15'$

- observed fish jump within Sweetwater Creek just downstream of PPE #2. Steady flow observed in Sweetwater Creek.

- located accessible potential sampling point, upstream of Pond + PPE #1 + PPE #2 @ Sweetwater Creek:

$N 33.81924^\circ$

$W 84.64032^\circ \pm 15'$

The Point is actually PPE #3, where ditch that runs along SW portion of site, flows towards the South. ^{drainage} Runs parallel to Sweetwater until discharging to Sweetwater Creek at point noted above.

- Residents @ 3014 Stovall Rd say they are not ^{receiving} well water + all on Stovall Rd are supplied drinking water by the city.

[Signature] 5/14/19

5/14/2019 Powder Spring Rd. Platting

- Met Rusty Elmore @ 5421 Austell Powder Springs Rd, a used car lot. Rusty has fished for 20+ years on Sweetwater Creek. Has caught brim, blue catfish, crappie and bass. Fishes mostly the section of Sweetwater upstream of the Austell Powder Springs Rd, immediately upstream from the site.
- No well house observed @ 2900 Stouell Rd.
- Observed ^{four} ~~three~~ fishing lures ^{wrappers} on bank of Sweetwater Creek downstream of PPE @
N 33.82264°
W 84.63819° ± 21'
- Observed minnow bucket just south of walking trail in I.T. And Loretta Terrell Cam. @
N 33.82162°
W 84.63549° ± 22'
Garden & Edw. Contr.
- 5552 Owens Drive house backs up to large pond

[Signature] 5/14/19

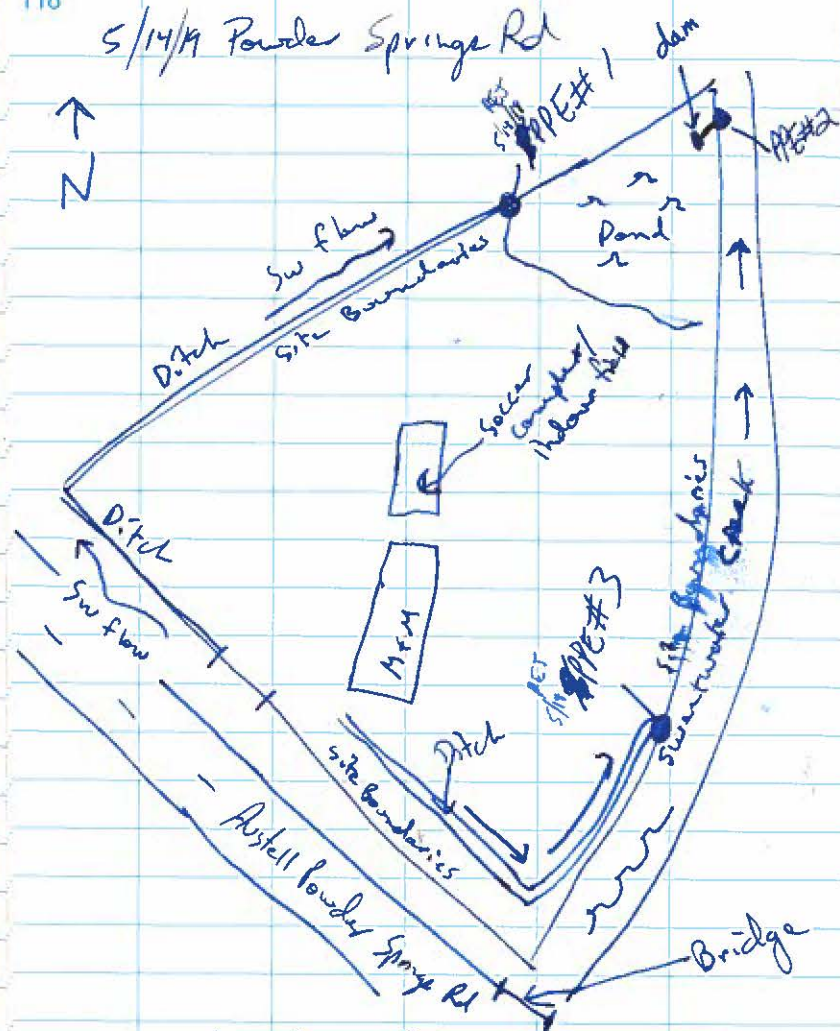
5/14/2019 Powder Springs Rd. Platting

Conducted well survey along Stouell Rd, Owens Drive, Edith Street, Windy Lane, Pratt Street + Powder Springs Road. No well houses observed.

14:20 Andy T. + Peter J. completed Recon + head back to office.

[Signature]
5/14/19

5/14/19 Powder Springs Rd



⑫ Powder Springs Road Plating
Susan Weinstein, Ryan Weinstein
~~Prop~~
Property owner

Powder Springs Industrial, LLC

recycle metals only

plumbers, electricians

aluminum & other metals

most from household

pay customer by the pound

drop-off locations

take to bigger scrap yards
that recycle

~~Andrew S. Taft 05/14/2019~~

⑬

Keep non-ferrous metals
inside building due to value
(Warehouse Building)

Ms. Wein

2007 began recycling operation
on-site - first rented before purchase
building
was vacant and empty when
started operation

Mrs. W. thinks they were inspected
for storm water permit w/2
up to date

- Could have been conducted
by consulting firm

- Consultant comes out every
quarter, conduct water sampling

"Conversion Technology

for sheet flow

Andrew S. Taft 05/14/2019

(14)

- They do collect samples

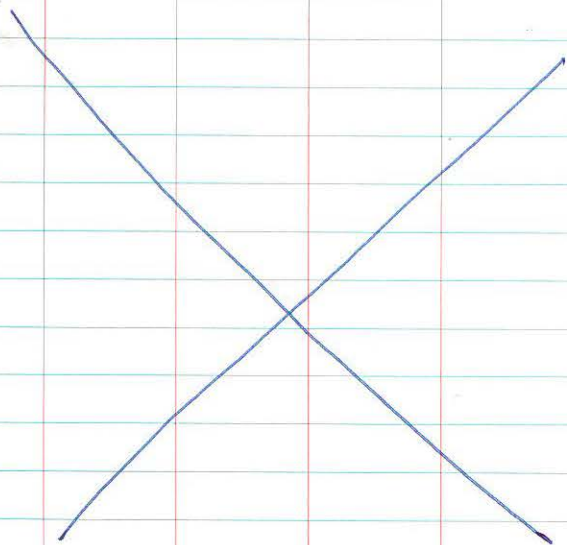
empty dumpsters behind

building

rent out dumpsters

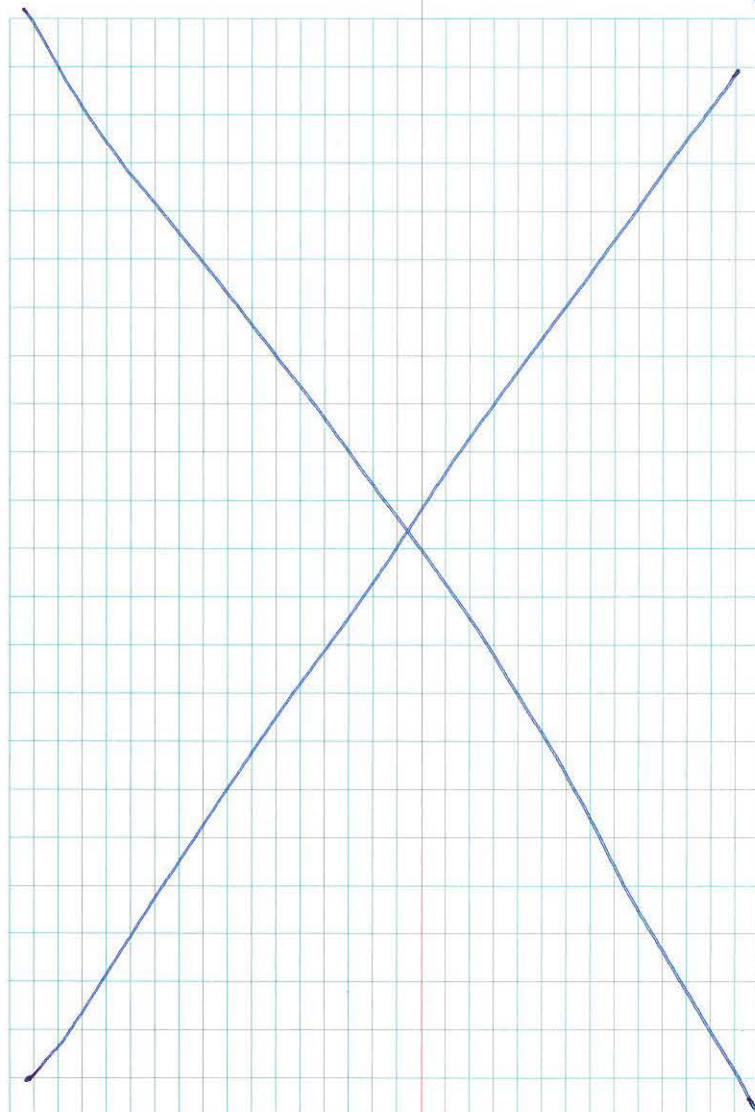
for roofing and others

nothing to do with metal recycling



Andrew S. Taft 05/14/2019

(15)



Andrew S. Taft 05/14/2019

APPENDIX C

**GEPD Record of Communication Documenting Phone Conversation with
Treatment Plant Specialist, City of East Point Water and Sewer Division, East
Point, Georgia, Conducted June 12, 2019 (Ref. 39)**



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

June 12, 2019

RECORD OF COMMUNICATION

CONTACT: Mac Mattox, Treatment Plant Superintendent
City of East Point Water and Sewer Div., Fulton County, Georgia
404-270-7145 (office)

CONTACTED BY: Peter Johnson, Geologist *PEJ*
Environmental Protection Division
Georgia Department of Natural Resources
404-657-0490 (office)

CONTACT MADE: By Phone

DATE OF CONTACT: June 12, 2019

REFERENCE: Preliminary Assessment
Powder Springs Road Plating
Austell, Cobb County, Georgia

SUBJECT: The East Point Water System Source, Source Contribution and
Population Served

Mr. Mattox provided the following information:

- The potable water source of the East Point Water System (EPWS) is surface water, withdrawn from one point within Sweetwater Creek;
- The surface water intake used to supply water for the EPWS within Sweetwater Creek is located on North River Road, approximately 1 mile upstream from the confluence of Sweetwater Creek and the Chattahoochee River;
- The EPWS supplies potable water to approximately 30,000 residents in The City of East Point, 5,000 residents in Hapeville and 5,000 residents in College Park; and
- The City of East Point leases the George H. Sparks Reservoir to Sweetwater Creek State Park. Mr. Mattox stated people fish and consume their catch from the reservoir and the portion of Sweetwater Creek within Sweetwater Creek State Park.

APPENDIX D

**GEPD Record of Communication Documenting Phone Conversation with
Water Quality Coordinator, City of Hapeville Public Works, Hapeville,
Georgia, Conducted June 17, 2019 (Ref. 40)**



ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

June 17, 2019

RECORD OF COMMUNICATION

CONTACT: Lemuel Eubanks, Water Quality Coordinator
City of Hapeville Public Works, Fulton County, Georgia
404-669-2122 (Office)

CONTACTED BY: Peter Johnson, Geologist *PET*
Environmental Protection Division
Georgia Department of Natural Resources
404-657-0490 (office)

CONTACT MADE: By Phone

DATE OF CONTACT: June 17, 2019

REFERENCE: Preliminary Assessment
Powder Springs Road Plating
Austell, Cobb County, Georgia

SUBJECT: City of Hapeville Water System Sources, Source Contribution and
Population Served

Mr. Eubanks provided the following information:

- The potable water sources of the Hapeville Water System (HWS) include the following:
 - Purchased water from the City of Atlanta; and
 - Purchased water from the City of East Point;
- Approximately 99% of the potable water supplied to the HWS customers is purchased from the City of Atlanta. Approximately 1% of the potable water supplied to the HWS customers is purchased from the City of East Point;
- Each service connection supplied by the HWS has the potential to receive potable water from any of the potable water sources (i.e., the system is “Blended”);

Record of Communication

Lemuel Eubanks

Page 2

- There are approximately 2,230 service connections in the HWS, serving potable water to approximately 7,000 HWS customers; and
- Municipal public supply wells formerly used by the HWS were decommissioned in the 1950s or 1960s.

APPENDIX E

**GEPD Record of Communication Documenting Phone Conversation with
Water Operator, City of Powder Springs, Powder Springs, Georgia,
Conducted June 17, 2019 (Ref. 41)**



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch

2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

June 17, 2019

RECORD OF COMMUNICATION

CONTACT: Robert Kellett, Water Operator
City of Powder Springs Public Works, Cobb County, Georgia
404-583-8411 (cell)

CONTACTED BY: Peter Johnson, Geologist *PEJ*
Environmental Protection Division
Georgia Department of Natural Resources
404-657-0490 (office)

CONTACT MADE: By Phone

DATE OF CONTACT: June 17, 2019

REFERENCE: Preliminary Assessment
Powder Springs Road Plating
Austell, Cobb County, Georgia

SUBJECT: Powder Springs Water System Source, Source Contribution and
Population Served

Mr. Kellett provided the following information:

- Potable water supplying the Powder Springs Water System (PSWS) is purchased exclusively from the Cobb-Marietta Water Authority;
- There are approximately 7,500 service connections in the PSWS serving potable water to approximately 15,000 customers; and
- One municipal supply well (formerly used by the PSWS) was decommissioned in 2003.

APPENDIX F

**GEPD Record of Communication Documenting Email Correspondences with
Office Manager, City of Austell Public Works, Hapeville, Georgia, Conducted
June 12 & June 14, 2019 (Ref. 42)**

From: [Jannette](#)
To: [Johnson, Peter](#)
Subject: RE: City of Austell Drinking Water Supply
Date: Friday, June 14, 2019 1:06:16 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
Importance: High

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Peter, here are the

1. What are the sources for the city water supply (i.e. well water, surface water, or pay for water from elsewhere)? **100% Purchased from Cobb County Marietta Water Authority**
 2. How many wells are within the city supply water network (if any)? **NONE**
 3. How many wells are active? How many standby. Are standby wells being maintained? **N/A**
 4. How many metered customers, including private residences, schools, and businesses, are there in the city supply water network? **3,500 approximately**
 5. Which aquifer(s) are well(s) set and depth and screen interval of the wells, particularly nearest to the site (if known)? **N/A**
 6. Can each service connection of the system potentially receive potable water from any of the system sources (i.e., blended)? **N/A**
 7. On an annual basis, are there any wells or surface water intakes that contribute more than 40% to the city water supply? **N/A**
- If yes: **N/A**
1. What is the production capacity (in gallons) from the water well(s) and/or surface water intake in the blended system?
 2. Are there standby well(s)?

Hope this will help

Jannette Mariani Herrera

Office Manager

City of Austell - Public Works

5000 Austell-Powder Springs Road, Suite 105
Austell, Georgia 30106-2427

✉ E-Mail: jannette@austellga.gov | 🌐 Internet: www.austellga.gov

☎ Direct Dial: (678) 564-0869 | 📠 Main: (770) 944-4325 | 📠 Facsimile: (770) 944-4335

"City of Opportunity. Moving Forward!"



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Please consider the environment before printing this e-mail.

From: Johnson, Peter <Peter.Johnson@dnr.ga.gov>
Sent: Wednesday, June 12, 2019 11:29 AM
To: Jannette <Jannette@austellga.gov>
Subject: City of Austell Drinking Water Supply

Hello Jannette,

As discussed, we are conducting a site assessment in the nearby area. As part of this assessment we gather information regarding drinking water supply and ask the following questions (many may not apply):

1. What are the sources for the city water supply (i.e. well water, surface water, or pay for water from elsewhere)?
2. How many wells are within the city supply water network (if any)?
3. How many wells are active? How many standby. Are standby wells being maintained?
4. How many metered customers, including private residences, schools, and businesses, are there in the city supply water network?
5. Which aquifer(s) are well(s) set and depth and screen interval of the wells, particularly nearest to the site (if known)?
6. Can each service connection of the system potentially receive potable water from any of the system sources (i.e., blended)?
7. On an annual basis, are there any wells or surface water intakes that contribute more than 40% to the city water supply?
If yes:
 1. What is the production capacity (in gallons) from the water well(s) and/or surface water intake in the blended system?
 2. Are there standby well(s)?

I really appreciate your time and thanks in advance,

Peter Johnson, P.G.

Geologist

Georgia Environmental Protection Division

Land Protection Branch

404-657-0490

APPENDIX G

**GEPD Record of Communication Documenting Phone Conversation with
Compliance Officer, College Park Water and Sewer Division, College Park,
Georgia, Conducted December 17, 2018 (Ref. 43)**



ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch

2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

December 17, 2018

RECORD OF COMMUNICATION

CONTACT: Phil Lee, Compliance Office
City of College Park Water and Sewer Div., Fulton County, Georgia
404-886-3010 (office)

CONTACTED BY: Peter Johnson, Geologist *PET*
Environmental Protection Division
Georgia Department of Natural Resources
404-657-0490 (office)

CONTACT MADE: By Phone

DATE OF CONTACT: December 14, 2018

REFERENCE: Preliminary Assessment
MGA Holdings, LLC
East Point, Fulton County, Georgia

SUBJECT: The City of East Point and City of College Park Water System
Sources, Source Contributions and Population Served

Mr. Lee provided the following information:

- The drinking water sources of the City of College Park Water System (CPWS) include the following (all currently active):
 - Four municipal groundwater supply wells;
 - Purchased water from the City of East Point;
 - Purchased water from Clayton County; and
 - Purchased water from the City of Atlanta (in emergencies only);
- Approximately 7% of the potable water supplied to the CPWS customers is sourced from the four municipal groundwater supply wells.
- Approximately 93% of the potable water supplied to the CPWS customers is purchased from the City of East Point and the Clayton County water supply systems;

Record of Communication
MGA Holdings, LLC
City of College Park Water System
December 17, 2018

- Of the purchased potable water, approximately 55% is supplied by the City of East Point water supply system and approximately 45% is supplied by the Clayton County water supply system;
- Surface water is the only potable water source used by the City of East Point (Sweetwater Creek) and the City of Atlanta (primarily Big Cotton Indian Creek) water supply systems;
- Each service connection supplied by the CPWS has the potential to receive potable water from any of the potable water sources (i.e., the system is “Blended”); and
- There are approximately 2,900 service connections in the CPWS, serving potable water to approximately 20,000 CPWS customers.

APPENDIX H

**GEPD Record of Communication Documenting Phone Conversation with
Owner, M&M Waste/M&M Recycling, Austell, Georgia, Conducted June 18,
2019 (Ref. 44)**



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

June 18, 2019

RECORD OF COMMUNICATION

CONTACT: Susan Weinstein, Owner
M&M Waste/M&M Recycling
5491 Austell Powder Springs Road
Austell, Georgia 30106
404-226-2039 (cell)

CONTACTED BY: Peter Johnson, Geologist *PEJ*
Environmental Protection Division
Georgia Department of Natural Resources
404-657-0490 (office)

CONTACT MADE: By Phone

DATE OF CONTACT: June 18, 2019

REFERENCE: Preliminary Assessment
Powder Springs Road Plating
Austell, Cobb County, Georgia

SUBJECT: Stormwater Permit Data and/or Reporting and Total Number of On-site Employees of M&M Waste/M&M Recycling

Ms. Weinstein provided the following information:

- There are three full-time employees that are employed by M&M Waste/M&M Recycling at 5491 Austell Powder Springs Road, Austell, Georgia; and
- One stormwater sample is collected from their property by their consultant and submitted for laboratory analysis on an annual basis.

APPENDIX I

Approximate Population Served by Domestic Wells Located Within Four Miles of Site Reference Point

Powder Springs Road Plating
Austell, Cobb County

Lat. 33. 820297° North/ Long. 84.642108° West

Population			Households		Households Domestic Well		Households Public Water		Population Domestic Well		Population Public Water	
RAD	Ring	Total	Ring	Total	Ring	Total	Ring	Total	Ring	Total	Ring	Total
.25	108	108	45	45	0	0	45	45	0	0	108	108
.5	365	473	143	188	0	0	143	188	0	0	365	473
1	1,759	2,232	659	847	0	0	659	846	0	0	1,758	2,231
2	8,412	10,644	3,144	3,991	27	27	3,117	3,964	74	74	8,338	10,569
3	15,883	26,527	5,731	9,722	71	98	5,661	9,625	199	273	15,683	26,252
4	22,713	49,240	8,035	17,757	146	244	7,889	17,514	423	696	22,290	48,542

Source: Census of Population and Housing, 1990: Summary Tape File 3 on CD-ROM Georgia
[machine-readable data files] / prepared by the Bureau of the Census – Washington, D.C.: The
Bureau [producer and distributor], 1992.

APPENDIX J

Approximate Population Located Within Four Miles of Site Reference Point

Powder Springs Road Plating
Austell, Cobb County

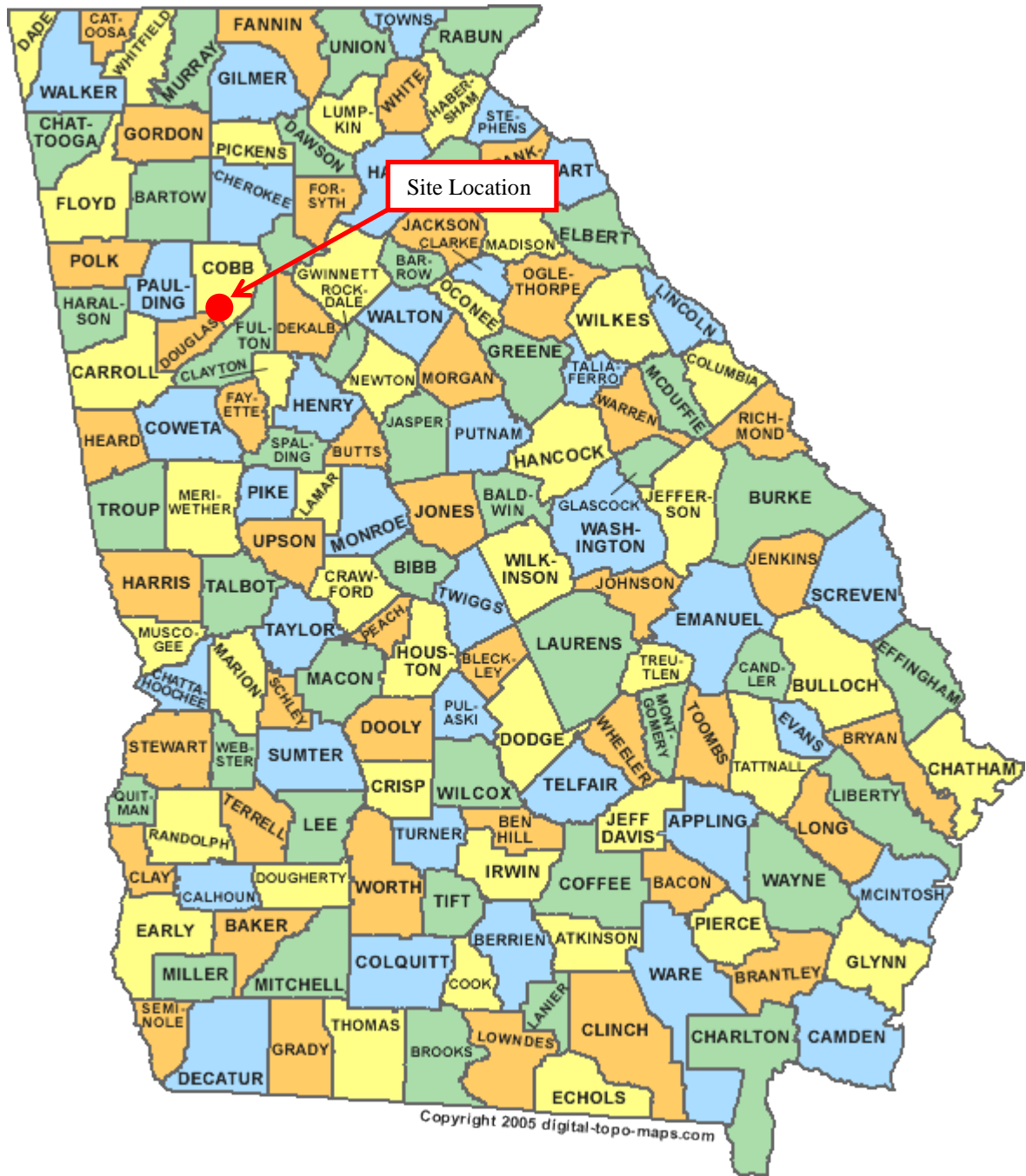
Lat. 33. 820297° North/ Long. 84.642108° West

Rad	Population		Households	
	Ring	Total	Ring	Total
.25	73	73	28	28
.5	405	478	150	178
1	2,279	2,757	888	1,066
2	10,450	13,207	3,868	4,934
3	22,623	35,830	8,844	13,778
4	30,853	66,683	10,996	24,774

Source: Census of Population and Housing, 2000: Summary Tape File 3 on CD-ROM Georgia
[machine-readable data files] / prepared by the Bureau of the Census – Washington, D.C.: The
Bureau [producer and distributor], 2002.

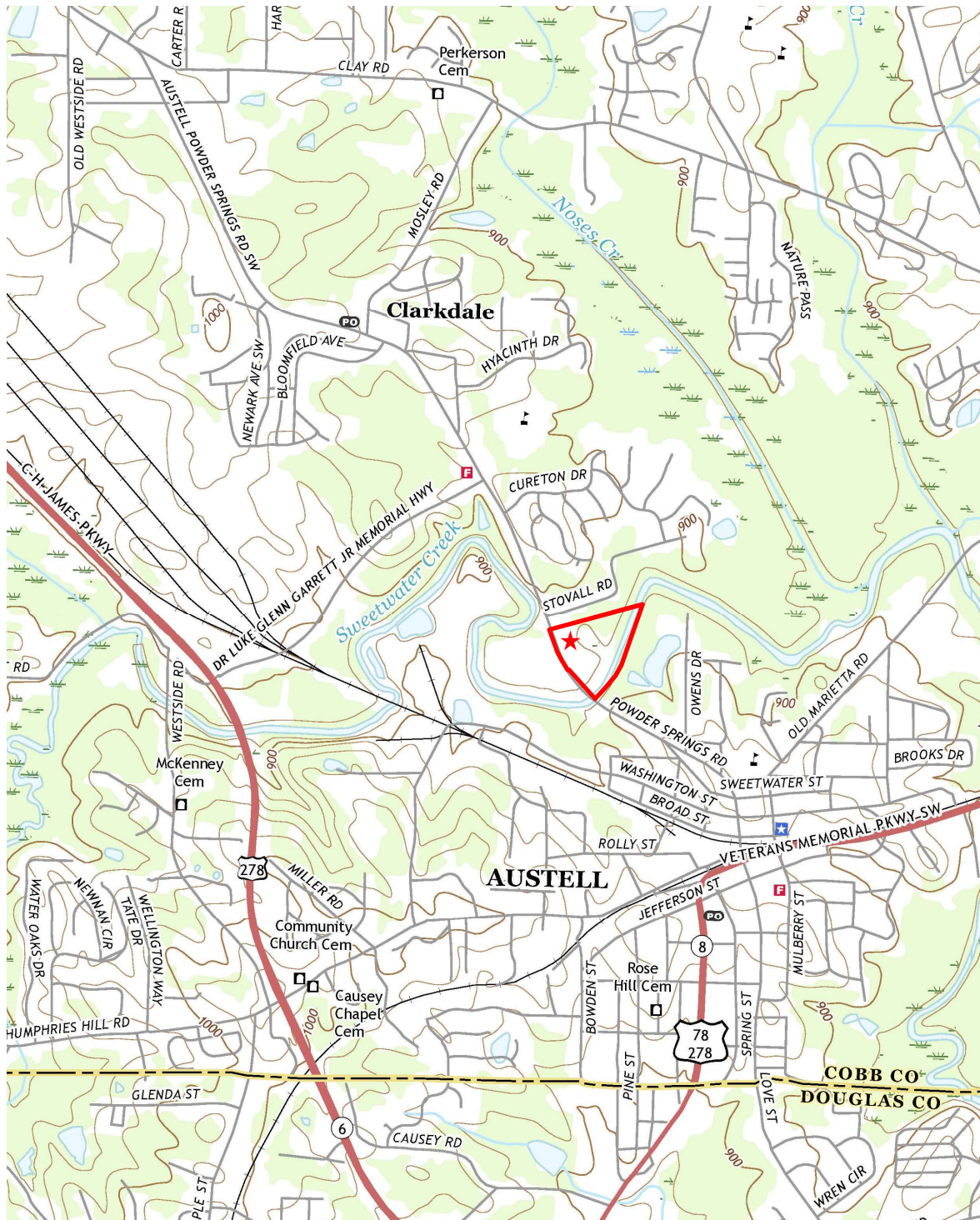
FIGURES

Powder Springs Road Plating (Austell, Cobb County, Georgia)





**FIGURE 1: Approximate Site Location within Georgia
(Refs. 5, 7, 12 & 25)**

Powder Springs Road Plating (Austell, Cobb County, Georgia)



Notes:



1.  = Approximate site boundaries.
2.  = Approximate location of the site reference point.

**FIGURE 2: General Site Location, Approximate Site Boundaries & Site Reference Point
(Refs. 1 – 3, 5, 6, 8 & 24)**

Powder Springs Road Plating (Austell, Cobb County, Georgia)



Notes:

1.  = Approximate site boundaries.
2.  = Approximate location of the site reference point.

**FIGURE 3: Nearby Surrounding Area, Approximate Site Boundaries & Site Reference Point
(Refs. 1 – 3, 5, 6 & 24)**

Powder Springs Road Plating (Austell, Cobb County, Georgia)

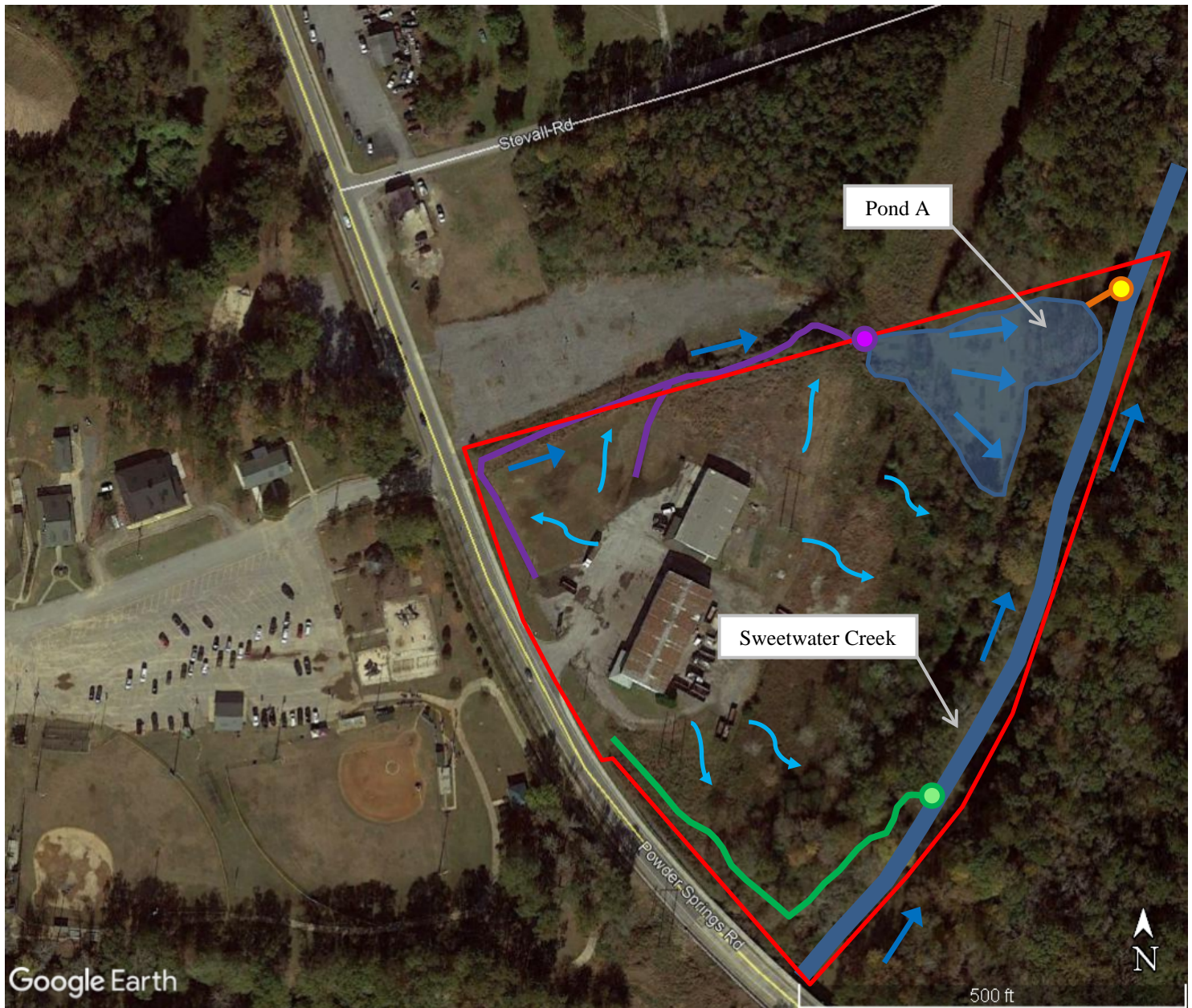


Notes:

1. = Approximate site boundaries.
2. = Approximate location of the site reference point.
3. = Electroplating Area (approximate focus area of the 2009 – 2010 United States Environmental Protection Agency (USEPA) removal activities).
4. No buildings/structures currently exist within the highlighted Electroplating Area as they were demolished during the 2009 – 2010 USEPA removal activities.

FIGURE 4: 2010 Aerial Photograph Depicting Approximate Site Boundaries, Site Reference Point & Site Features Prior to USEPA Removal Activities (Refs. 1 – 3, 4, 6 & 24)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

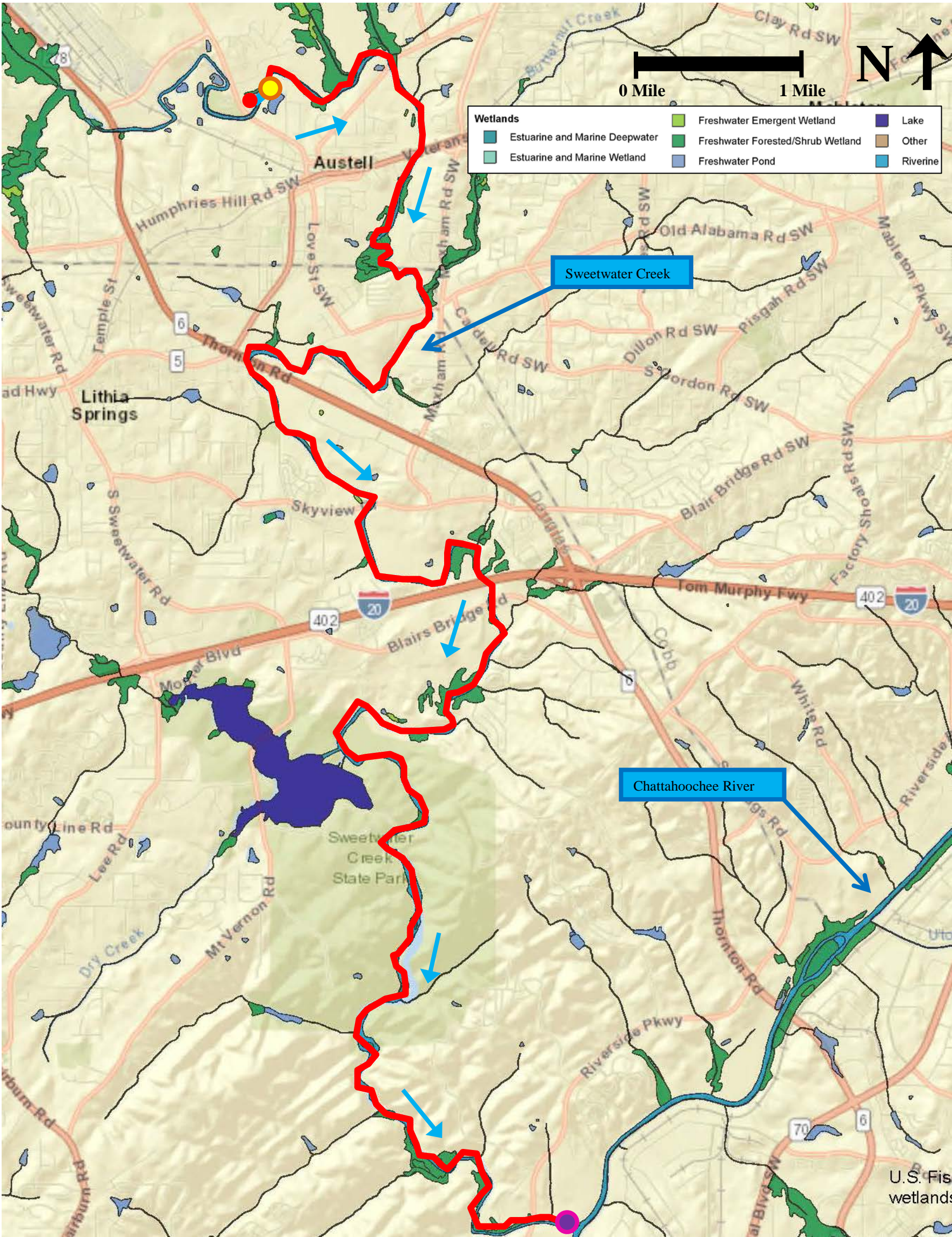


Notes:

1. — = Approximate site boundaries.
2. — = Overland Run-Off Route (OROR) #1 (i.e., the migration route that site generated run-off would follow from a particular on-site source to a perennial surface water body).
3. — = OROR #2.
4. — = OROR #3.
5. ● = Probable Point of Entry (PPE) #1, (i.e., any point at which site generated run-off enters a perennial surface water body).
6. ● = PPE #2.
7. ● = PPE #3.
8. → = Surface water flow direction.
9. → = Site generated run-off water flow direction.

FIGURE 5: Overland Run-Off Routes & Probable Points of Entry (Refs. 1 – 3 & 5 – 8)

Powder Springs Road Plating
(Austell, Cobb County, Georgia)



- Notes:
1. ● = Approximate site location.
 2. — = Combined Overland Run-Off Routes (migration routes site generated run-off follows from a particular on-site source of a hazardous substance to a perennial surface water body).
 3. ● = Probable Point of Entry (the point at which site generated run-off enters a perennial surface water body).
 4. — = Target Distant Limit (migration route site generated run-off follows from the point it enters a perennial surface water body to a point 15 miles downstream).
 5. ● = End of Target Distant Limit.
 6. ↗ = Surface water flow direction.
 7. For the purposes of this PA, there is one TDL beginning from the most upstream PPE (PPE #3) extending 15 river miles from the most downstream PPE (PPE #2) and includes the 325-foot portion of Pond A from PPE #1 to PPE #2.

FIGURE 6: Overland Run-Off Routes, Probable Point of Entry, Target Distant Limit & Qualifying Wetland Frontage (Refs. 1 – 3, 5, 8, 26 & 27)

TABLES

Powder Springs Road Plating (Austell, Cobb County, Georgia)

Site Reference Point Coordinates: Lat. 33.820297° North/ Long. 84.642108° West	
Reference Point Description: The approximate location of the sampling location PSP-S-27, where a release of lead was detected at 10,200 mg/kg in soil. PSP-S-27 was collected during a December 2009 United States Environmental Protection Agency/Tetra Tech Superfund Technical Assessment and Response Team sampling event in the northern half of the interior of the former plating building, in the northwestern portion of the site.	
Method Accuracy Description Data	
<i>Accuracy</i>	Unknown
<i>Collection Method</i>	Google Earth
<i>Reference Datum</i>	The World Geodetic System of 1984 (WGS84), the datum used by Google Earth)
<i>Source Map Scale</i>	Not Applicable
<i>Verification Method (optional)</i>	None
<i>Source (optional)</i>	Google Earth
<i>Point/Line/Area (optional)</i>	Not determined
<i>Measurement sequence (optional)</i>	Not determined
<i>Collection Date</i>	May 2, 2019

TABLE 1: Site Reference Point Coordinates and Method Accuracy Description Data (Refs. 1 – 3, 6 & 24)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

Concentric Distance Category	Households on Domestic Wells		Population on Domestic Wells	
	Concentric Ring	Total	Concentric Ring	Total
0 – ¼ Mile	0	0	0	0
> ¼ – ½ Mile	0	0	0	0
> ½ – 1 Mile	0	0	0	0
> 1 – 2 Miles	27	27	74	74
> 2 – 3 Miles	71	98	199	273
> 3 – 4 Miles	146	244	423	696

Notes:

1. Site Reference Point = Latitude 33.820297° North and Longitude 84.642108° West.
2. Domestic well information for 0 – ½ mile obtained from GEPD well survey conducted May 14, 2019.
3. Domestic well information for > ½ – 4 miles obtained from 1990 census.
4. Domestic well information was not collected as part of the 2000 or 2010 census.

TABLE 2: Approximate Population Served by Domestic Wells Located Within Four Miles of Site Reference Point (Refs. 1 – 3, 6, 24 & 47)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

Concentric Distance Category	Population Served by Domestic Wells	Population Served by Public Wells	Population Served by Domestic & Public Wells
0 – ¼ Mile	0	0	0
> ¼ – ½ Mile	0	0	0
> ½ – 1 Mile	0	0	0
> 1 – 2 Miles	74	0	74
> 2 – 3 Miles	199	0	199
> 3 – 4 Miles	423	280	703
TOTAL	696	280	976

Notes:

1. Site Reference Point = Latitude 33.820297° North and Longitude 84.642108° West.
2. Domestic well information for 0 – ½ mile obtained from GEPD well survey conducted May 14, 2019.
3. Domestic well information for > ½ – 4 miles obtained from 1990 census.
4. Domestic well information was not collected as part of the 2000 or 2010 census.

TABLE 3: Current Population Served by Domestic & Public Wells Located Within Four Miles of Site Reference Point (Refs. 1 – 3, 6, 24, 38, 42, 47 & 62)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

Drinking Water Systems (Source Type)	Potable Water Sources	Total Drinking Water System Population	Percentage of the System Drinking Water Population Supplied by the East Point Water System	Apportioned Drinking Water Population
East Point Water System (EPWS) (Surface Water)	Sweetwater Creek	30,000	100%	30,000
College Park Water System (CPWS) (Groundwater and Surface Water)	Municipal public supply wells, City of East Point, City of Atlanta and Clayton County Water Authority	20,000	51%	10,230
Hapeville Water System (HWS) (Surface Water)	City of East Point and City of Atlanta	7,000	1%	70
Estimated Total Drinking Water Population:				40,300

Notes:

1. Site Reference Point = Latitude 33.820297° North and Longitude 84.642108° West.
2. The CPWS and HWS purchases a portion of their potable water from the EPWS.
3. The percentage of the CPWS population supplied by the EPWS was provided by the CPWS Compliance Officer.
4. The percentage of the HWS population supplied by the EPWS was provided by the HWS Water Quality Coordinator.

TABLE 4: Apportioned Drinking Water Population for Each Potable Water Source of the East Point Water System (Refs. 1 – 3, 6, 24, 39, 40 & 43)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

SCIENTIFIC NAME	COMMON NAME	FEDERAL LEGAL STATUS	STATE LEGAL STATUS	HABITAT (AQUATIC AND/OR TERRESTRIAL)
Bird Species				
<i>Haliaeetus leucocephalus</i>	Bald Eagle	None	Threatened	Aquatic/Terrestrial
Fish Species				
<i>Notropis hypsilepis</i>	Highscale Shiner	None	Rare	Aquatic
Invertebrate Species				
<i>Cambarus howardi</i>	Chattahoochee Crayfish	None	Threatened	Aquatic
Plant Species				
<i>Amphianthus pusillus</i>	Pool Sprite, Snorkelwort	Threatened	Threatened	Aquatic
<i>Cypripedium acaule</i>	Pink Ladyslipper	None	Unusual	Aquatic/Terrestrial
<i>Cypripedium parviflorum</i>	Yellow Ladyslipper	None	Rare	Aquatic/Terrestrial
<i>Schisandra glabra</i>	Bay Star-vine	None	Threatened	Aquatic/Terrestrial
<i>Draba aprica</i>	Sun-loving Draba	None	Endangered	Terrestrial

Notes:

1. The surface water Target Distance Limit (TDL) is the migration route site generated run-off follows from the point it enters a perennial surface water body to a point 15 miles downstream.
2. As per Georgia Department of Natural Resources (Wildlife Resources Division) rare natural elements by location website, the surface water TDL is encompassed entirely by the Chattahoochee River, Lower North: Sweetwater Creek, Chattahoochee River Lower North HUC10 Watershed.

TABLE 5: Protected Species Reported to Occur Within the Watershed Encompassing the Surface Water Target Distance Limit (Refs. 1 – 3, 5, 8, 26, 27 & 66 – 68)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

Concentric Distance Category	Households		Population	
	Concentric Ring	Total	Concentric Ring	Total
0 – ¼ Mile	28	28	73	73
> ¼ – ½ Mile	150	178	405	478
> ½ – 1 Mile	888	1,066	2,279	2,757
> 1 – 2 Miles	3,868	4,934	10,450	13,207
> 2 – 3 Miles	8,844	13,778	22,623	35,830
> 3 – 4 Miles	10,996	24,774	30,853	66,683

Notes:

1. Site Reference Point = Latitude 33.820297° North and Longitude 84.642108° West.
2. Population information obtained from 2000 United States Census.

TABLE 6: Approximate Population Located Within Four Miles of Site Reference Point (Refs. 1 – 3, 6, 24 & 48)

Powder Springs Road Plating (Austell, Cobb County, Georgia)

SCIENTIFIC NAME	COMMON NAME	FEDERAL LEGAL STATUS	STATE LEGAL STATUS	HABITAT (AQUATIC AND/OR TERRESTRIAL)
Fish Species				
<i>Notropis hypsilepis</i>	Highscale Shiner	None	Rare	Aquatic
Bird Species				
<i>Haliaeetus leucocephalus</i>	Bald Eagle	None	Threatened	Aquatic/Terrestrial
Plant Species				
<i>Cypripedium acaule</i>	Pink Ladyslipper	None	Unusual	Aquatic/Terrestrial
<i>Schisandra glabra</i>	Bay Star-vine	None	Threatened	Aquatic/Terrestrial
<i>Symphyotrichum georgianum</i>	Georgia Aster	None	Threatened	Terrestrial
Invertebrate Species				
<i>Cambarus howardi</i>	Chattahoochee Crayfish	None	Threatened	Aquatic
<i>Medionidus penicillatus</i>	Gulf Moccasinshell	Endangered	Endangered	Aquatic

Notes:

1. Site Reference Point (SRP) = Latitude 33.820297° North and Longitude 84.642108° West.
2. The air Target Distance Limit (TDL) = that area located within four miles of the SRP.
3. As per Georgia Department of Natural Resources (Wildlife Resources Division) rare natural elements by location website, the site and immediate vicinity are encompassed by the following six quarter quadrants:
 - Austell, GA, NE Quarter Quad;
 - Austell, GA, SE Quarter Quad;
 - Austell, GA, NW Quarter Quad;
 - Austell, GA, SW Quarter Quad;
 - Mableton, GA, NW Quarter Quad; and
 - Mableton, GA, SW Quarter Quad.

**TABLE 7: Protected Species Reported to Occur Within
Quarter Quadrants Encompassing the Air Target Distance
Limit (Refs. 1 – 3, 6, 24 & 66 – 68)**

SELECTED REFERENCES

SELECTED REFERENCE #4


Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, SE, Suite 1154 East,
Atlanta, Georgia 30334
Chris Clark, Commissioner
Allen Barnes, Director
Environmental Protection Division
(404) 656-7802

October 29, 2009

COMPLAINT INSPECTION TRIP REPORT

SITE NAME AND LOCATION: HW Enterprises Inc; aka
Peach Chrome Plating; aka
HWB Enterprises
5491 Austell-Powder Springs Rd
Austell, GA

TRIP BY: Rick Hardy, EPD Geologist 

ACCOMPANIED BY: John Fonk, EPD Remedial Sites Unit Coordinator

DATE OF TRIP: October 23, 2009

OFFICIALS CONTACTED: Daryl Sawyer, Cobb County Water and Sewer
Travis Neumiller, Cobb County Water and Sewer
Sergeant Pearson, Austell PD
Matt Huyer, EPA Emergency Response
Randy Nattis, EPA Emergency Response OSC

REFERENCE: CTS Complaint # 59791

INTRODUCTION:

On the afternoon of October 22, 2009 EPD received a complaint call from Daryl Sawyer, the Pretreatment Unit Coordinator for the Cobb County Water and Sewer Department. Mr. Sawyer said the subject facility had a pretreatment permit for disposal of plating waste liquids and that Cobb County routinely inspected and monitored the facility. Mr. Sawyer stated that during a site visit he observed extensive damage from the recent flood, which occurred due to heavy rains during the last week of September 2009. Mr. Sawyer said the flood damage had resulted in a release of hazardous materials to the environment, which needed to be investigated by EPD. According to Mr. Sawyer the plating business is owned by Jerry Hart and possibly co-owned by Sam Webber (listed as their compliance contact). No contact information was available. The current business is believed to be named HW Enterprises Inc. It has also operated under the name Peach Chrome Plating and HWB Enterprises. The building has the words "Chrome Plating" stenciled near the front entrance. The Austell Police Department records indicate the property is owned by Springwood Apartments, LLC.

The facility is located in a small industrial park at 5491 Austell-Powder Springs Road (A-PS Rd) in Austell GA. The facility consists of a large corrugated steel building with a concrete floor. The building is adjacent to A-PS Rd, which forms the southwestern border of the industrial park. The industrial park is bordered to the south and southeast by a perennial stream (Sweetwater Creek), which is approximately 200 yards from the subject facility building. The northeast border of the industrial park is an unnamed ephemeral tributary to Sweetwater Creek, which is approximately 150 yards from the facility building. Surface water drainage flows from the facility building to the northeast toward the ephemeral tributary. (See Attachment 1-Aerial View of Site)

OBSERVATIONS- Parking Apron Outside the building

On September 23, 2009 EPD conducted a complaint inspection of the facility. EPD arranged for Mr. Sawyer to meet with EPD at the facility to confirm that the facility condition was unchanged since the county site visit. At 1400 hours Rick Hardy and John Fonk of EPD met Daryl Sawyer and Travis Neumiller at the facility. It was raining at the time of the inspection. The security fence was knocked down by the flood waters so access to the facility was unrestricted (Photo 1). A pool of dark red-brown liquid with a yellow/green halo believed to be Chromic Acid was observed to be emanating from the building out onto the asphalt parking apron (Photos 2-5). EPD checked the brown liquid as it exited the building with pH paper and found the pH to be 3. Discolored runoff from the pool, mixed with rainwater, was traced down gradient (northeast) across the asphalt surface for over 100 yards toward the ephemeral tributary. Numerous puddles of the discolored liquid were noted along the surface water pathway (Photos 6-10 and 12). The asphalt surface was cracked and broken (Photos 9 and 10). At the end of the asphalt, the surface water pathway continued into a field through which flowed the unnamed tributary to Sweetwater Creek (Photo 53). The field contained one full (Photo 11) and two partially full totes estimated at 275 gallons each (Photos 54-55). There were also a few containers of undetermined condition mixed with debris far back in the weeds near the ephemeral tributary (Photos 55-58).

OBSERVATIONS- Inside the building

Upon entry to the building (the rollup door was open) it was noted that the pool of brown liquid outside originated inside and had accumulated in the southeast corner of the building (Photos 13, 14, 51, and 52). Much of the floor throughout the building was discolored and wet with dark brown to black liquid. Pathways of dark liquid on the floor were observed leading from the plating tank area near the west side of the building and from overturned drums in the northern portion of the building (Photos 15 and 20). EPD noted a ~one inch hose with one end laying inside the plating tank and the other end laying on the building floor. The tank was estimated to have a volume of approximately 600 gallons. The tank was mostly empty at the time of the inspection with a small amount of the dark brown liquid and assorted debris/sludge in the bottom below the opening in the hose. The hose was stained dark brown and was presumably used to siphon plating waste liquid from the plating tank (Photos 16, 17, 18, 19 and 20).

The building was strewn with debris from the flood damage, numerous full and empty (spilled) containers of various sizes, and puddles of dark brown to black liquid and sludge mixed with soil (Photos 20, 22-25, 43, 44, 49-52). There were approximately 16 upright, unlabeled 55 gallon containers that appeared to be full of plating waste sludge around the plating tank. (Photos 19 and 20) There were six more upright 55 gallon containers that were staged in the northwest corner of the building (photo 49, in the far distance). The labels on these containers were damaged or not visible due to the way the containers were staged. One label was legible and read "Caustic Soda Anhydrous" (Sodium Hydroxide) (Photo 21). One 55 gallon container was observed laying on it's side, open, with metallic material spilling out (Photo 27). A few other unclearly labeled 55 gallon containers were scattered throughout the building. (Photos 15, 28, 50) Numerous 5 gallon containers of plating bath

additives were scattered throughout the building. Among those with legible labels included: "Cupra Brite 432 Replenisher (2)"; "DIS-MIST" (2); "Reflecta Maintenance-Nickel Plating Agent" (2). (Photos 25, 26, 45, and 46. Outside a tear in the north building wall, pushed through the wall by flood waters, were two 5 gallon containers of Nickel sulfate liquid (Photos 47,48). Two unlabeled 275 gallon totes full of brown liquid were also observed inside the building (Photo 50).

OBSERVATIONS, Pre-Treatment Area

The Pre-Treatment area was located outside the building through an open rollup door on the east building wall. The Pre-Treatment area had a round settling tank and a rectangular mixing tank, both sunken into a concrete pad, and both with dark brown liquid inside (Photos 29 and 30). Dark brown liquid was also observed inside the effluent discharge port to the county sewer system (Photo 40). Two full ~55 gallon containers were up on stands adjacent to the Pre-Treatment Tanks (Photo 31). One of the containers was labeled lush water (presumably flush water) holding tank. Also in the Pre-Treatment area were: one 15 gallon container of Sulfuric Acid; one 15 gallon container of copper cyanide; three 55 gallon containers of sulfuric acid; one 5 gallon container of "Reflecta Maintenance Nickel Plating Agent"; and one 275 gallon tote with brown liquid inside (Photos 32-39).

ACTIONS

EPD determined that due to the hazardous nature of the release and the lack of secure access to uncharacterized hazardous waste streams, emergency response action was warranted. EPA Region IV and EPD Emergency Response teams were contacted and informed of the situation. EPA dispatched OSC Randy Nattis to investigate the release and coordinate the cleanup and removal. EPD went to the Austell Police Department to request assistance in securing the site. EPD met with Watch Commander Sergeant Pearson of the Austell Police and explained the situation. Sergeant Pearson accompanied EPD back to the site, and said he would stay and secure the site until his shift ended at 1800 hours. He indicated he would inform the next Watch Commander of the situation. EPD left the site at approximately 1700 hours with Mr. Nattis en route.

CONCLUSIONS

At the time of this report the site is being cleaned up and investigated by Region IV EPA.

PHOTOS

Site photos 1 through 58 are included as an attachment.

REVIEWED BY: John Fork

DATE: 10/29/09

Attachments: Aerial View of Site
Site Photos 1-58
Complaint Tracking System Record



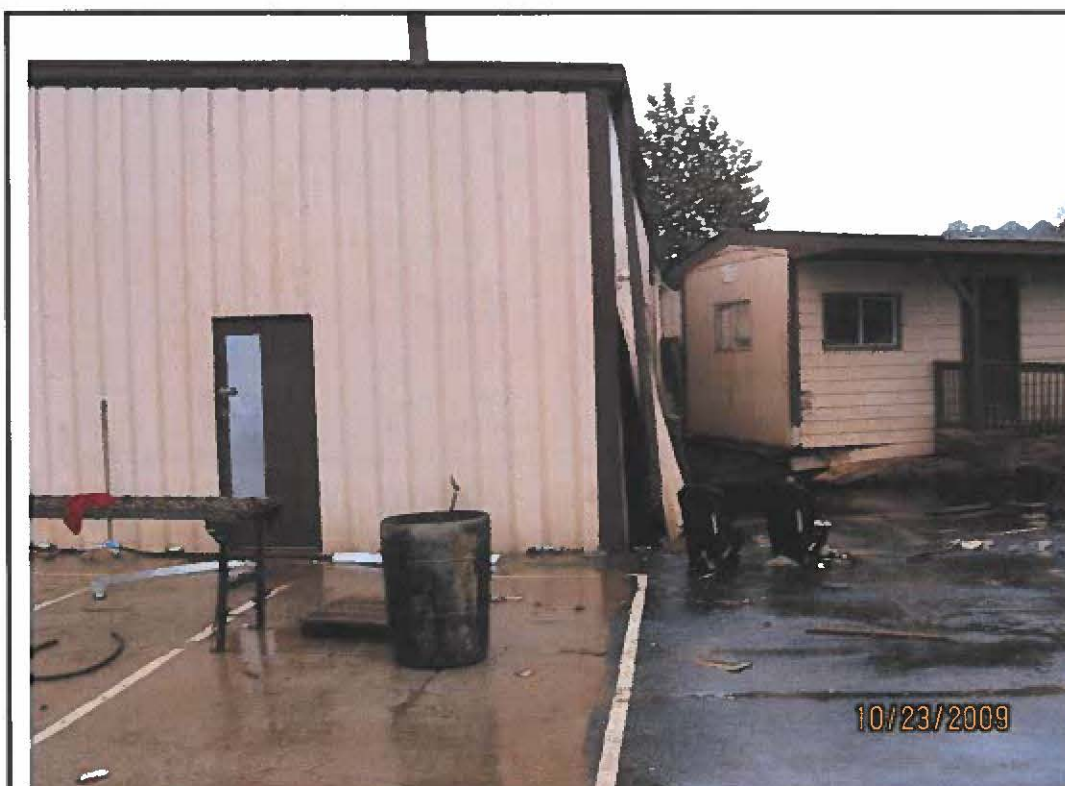
**Attachment 1
Aerial View
Chrome Plating
Facility Site**



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 1	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Entrance to facility. Note security fence to left of building is down.
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Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 2	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Southeast corner of building where release exits the building.
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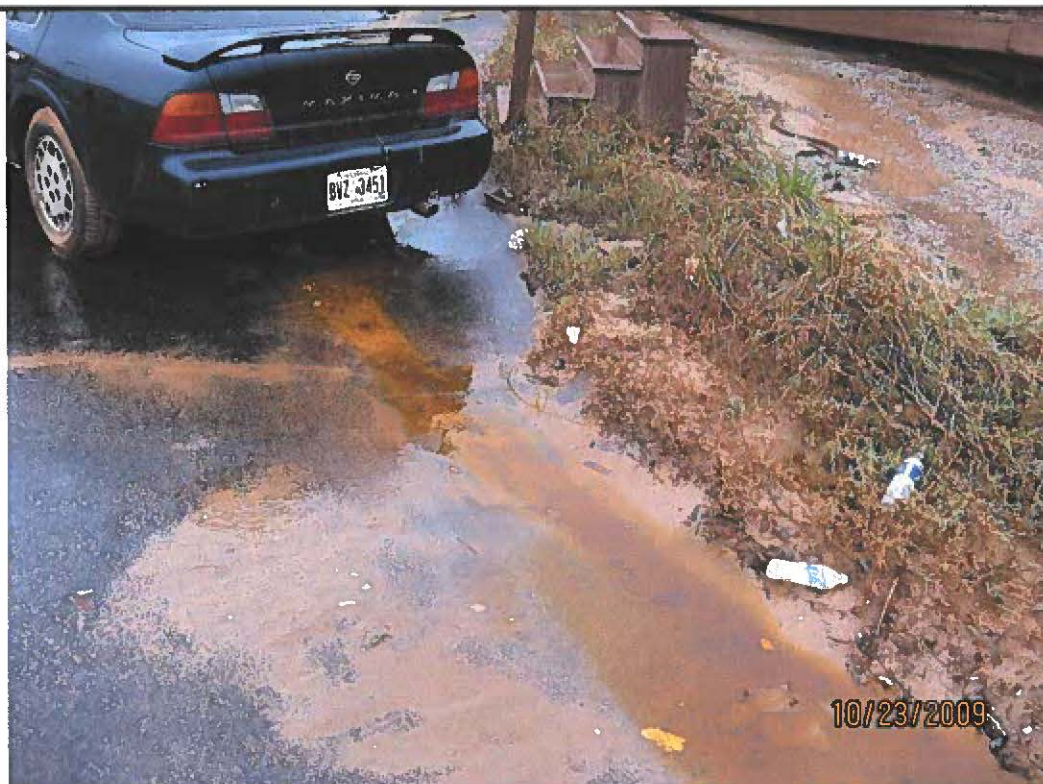
Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 3	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Release onto asphalt apron.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 4	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Close up of release pool.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 5	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Tracking the release down gradient.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 6	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Tracking the release down gradient.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 7	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Tracking the release down gradient	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 8	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Tracking the release to down gradient business. Note discolored puddles	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 9	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Tracking the release down gradient. Note cracks and breaks in asphalt	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 10	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Tracking the release down gradient. Note cracks and breaks in asphalt.	

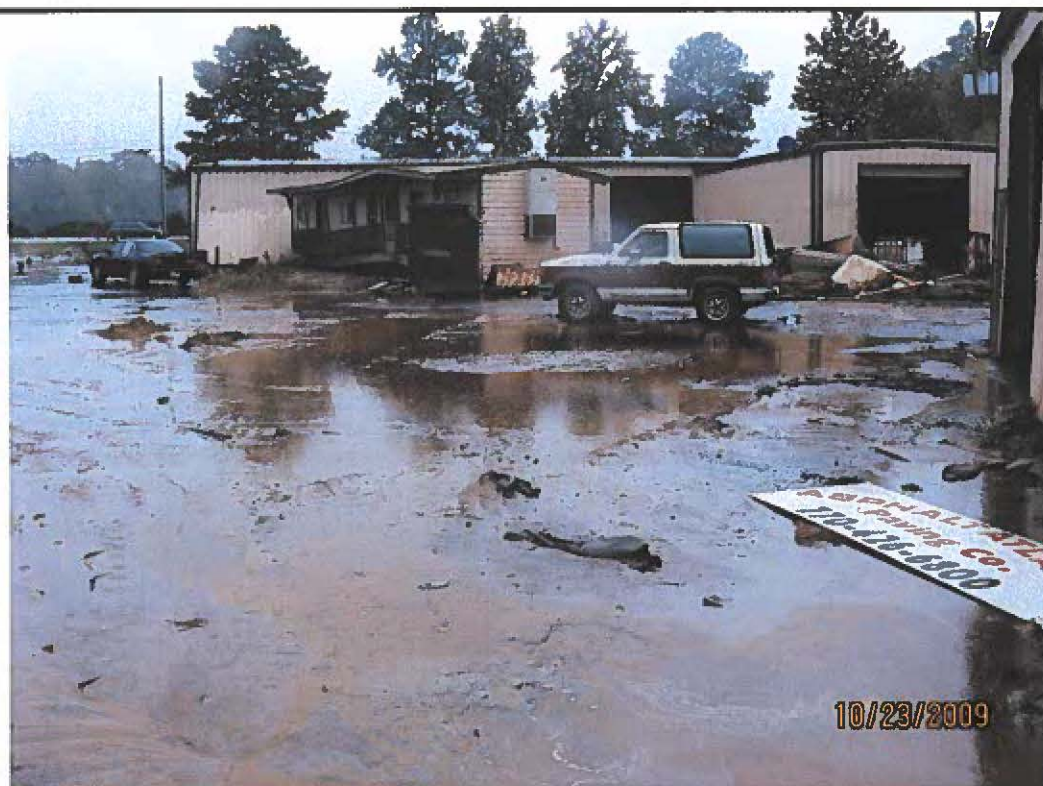


10/23/2009

Facility Name: HW Enterprise Inc./Peach Chrome Plating **Location:** Austell

Photo #: 11 **Photographer:** R. Hardy **Date:** 10/23/2009

Explanation: Full 275 gallon tote in down gradient field.



10/23/2009

Facility Name: HW Enterprise Inc./Peach Chrome Plating **Location:** Austell

Photo #: 12 **Photographer:** R. Hardy **Date:** 10/23/2009

Explanation: Looking up gradient toward plating facility.



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 13	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Southeast corner inside building
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Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 14	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Southeast corner inside building. Note exit location of release photo right.
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Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 15	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Inside building looking north. Note liquid on floor.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 16	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Plating tank with siphon hose	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 17	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Plating tank with siphon hose.	



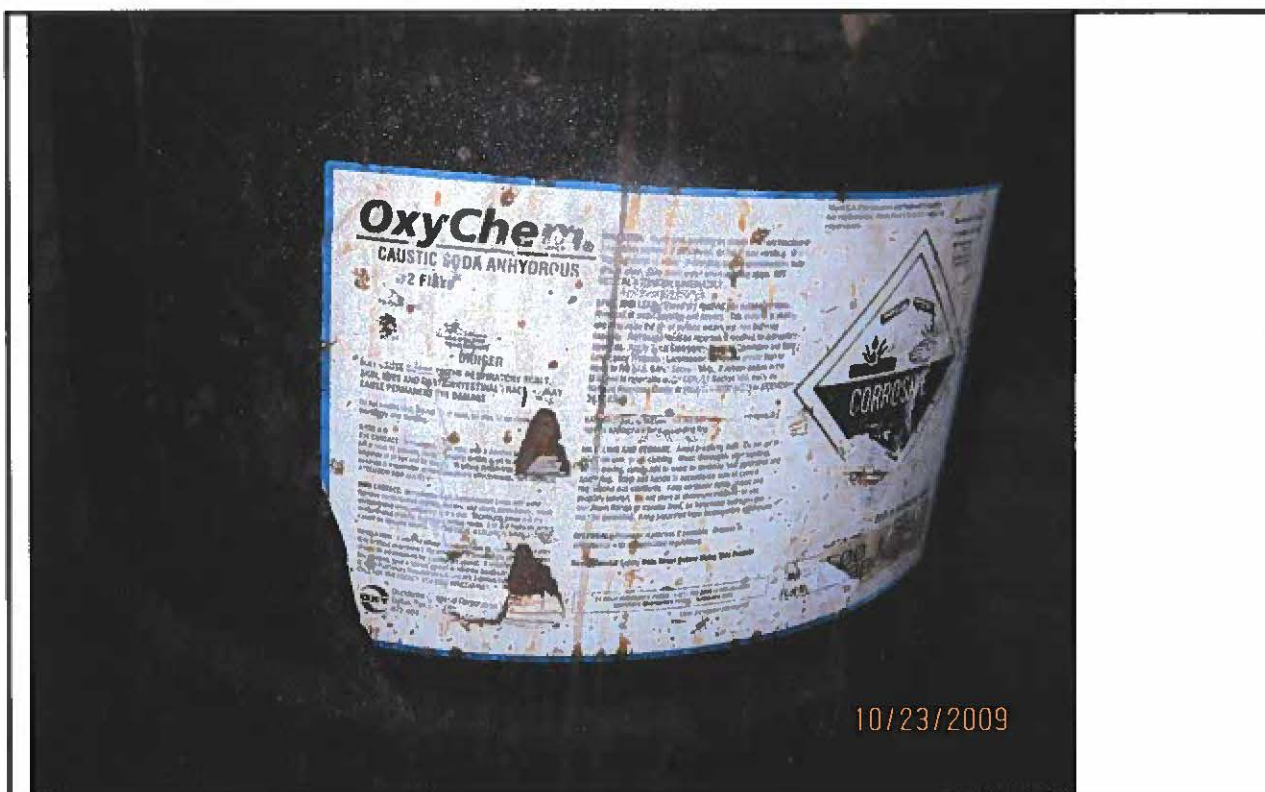
Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 18	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Plating tank with siphon hose.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 19	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Containers full of waste sludge	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 20	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Plating tank with siphon hose. Note stain on floor	



Facility Name: HW Enterprise Inc./Peach Chrome Plating

Location: Austell

Photo #: 21

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Drum staged in northwest corner of building



Facility Name: HW Enterprise Inc./Peach Chrome Plating

Location: Austell

Photo #: 22

Photographer: R. Hardy

Date: 10/23/2009

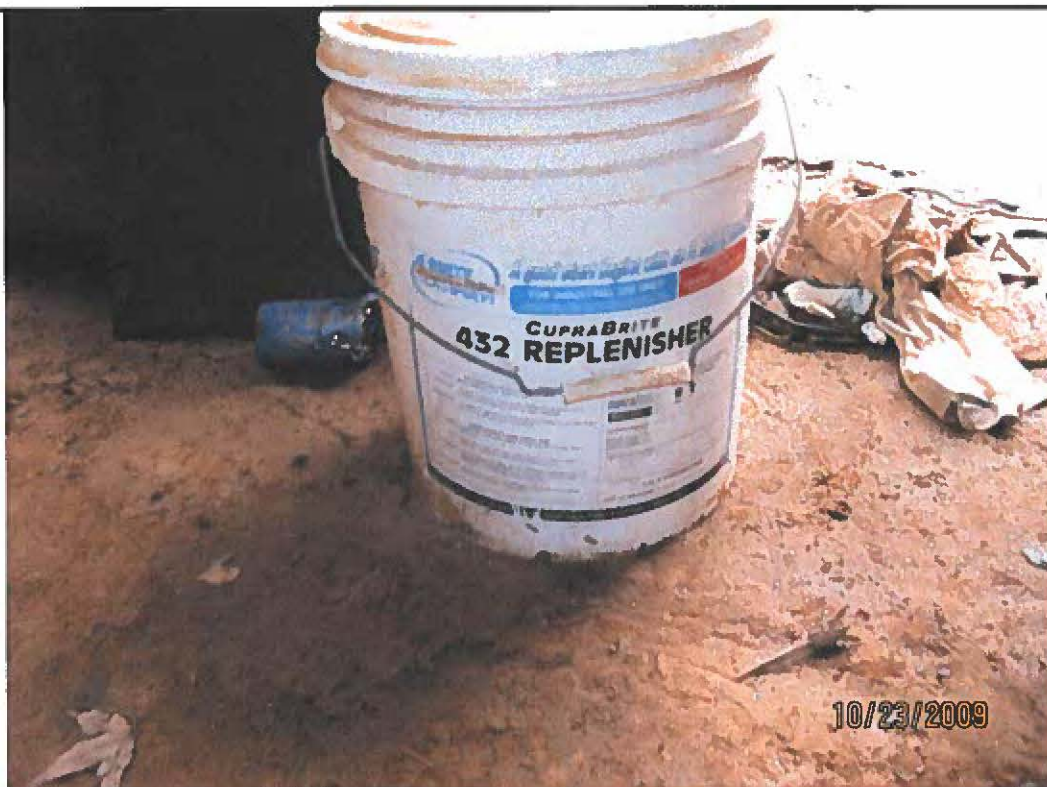
Explanation: Puddles of dark brown liquid inside building.



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 23	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Puddles of dark brown liquid on soil inside building.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 24	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Puddles of dark brown liquid on soil inside building.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 25	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: CupraBrite Replenisher	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 26	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: DIS MIST NP	



Facility Name: HW Enterprise Inc./Peach Chrome Plating

Location: Austell

Photo #: 27

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Drum spilling metallic material inside building.



Facility Name: HW Enterprise Inc./Peach Chrome Plating

Location: Austell

Photo #: 28

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Empty drums with pooled dark brown liquid. North end of building



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 29	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre-treatment area settling tank.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 30	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment area mixing tank.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 31	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment area. Full containers on stands. Flush Water holding tanks.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 32	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment Area. 15 gallon container of Sulfuric Acid.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating

Location: Austell

Photo #: 33

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Pre treatment area. 55 gallon container of sulfuric acid.



Facility Name: HW Enterprise Inc./Peach Chrome Plating

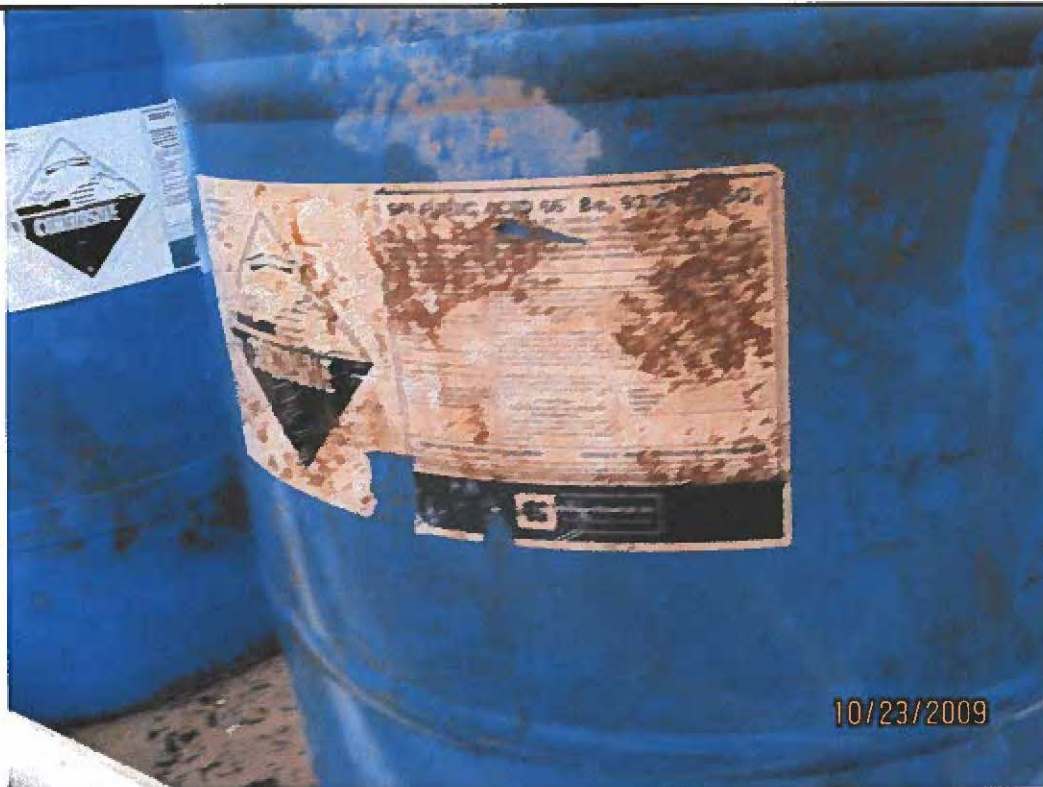
Location: Austell

Photo #: 34

Photographer: R. Hardy

Date: 10/23/2009

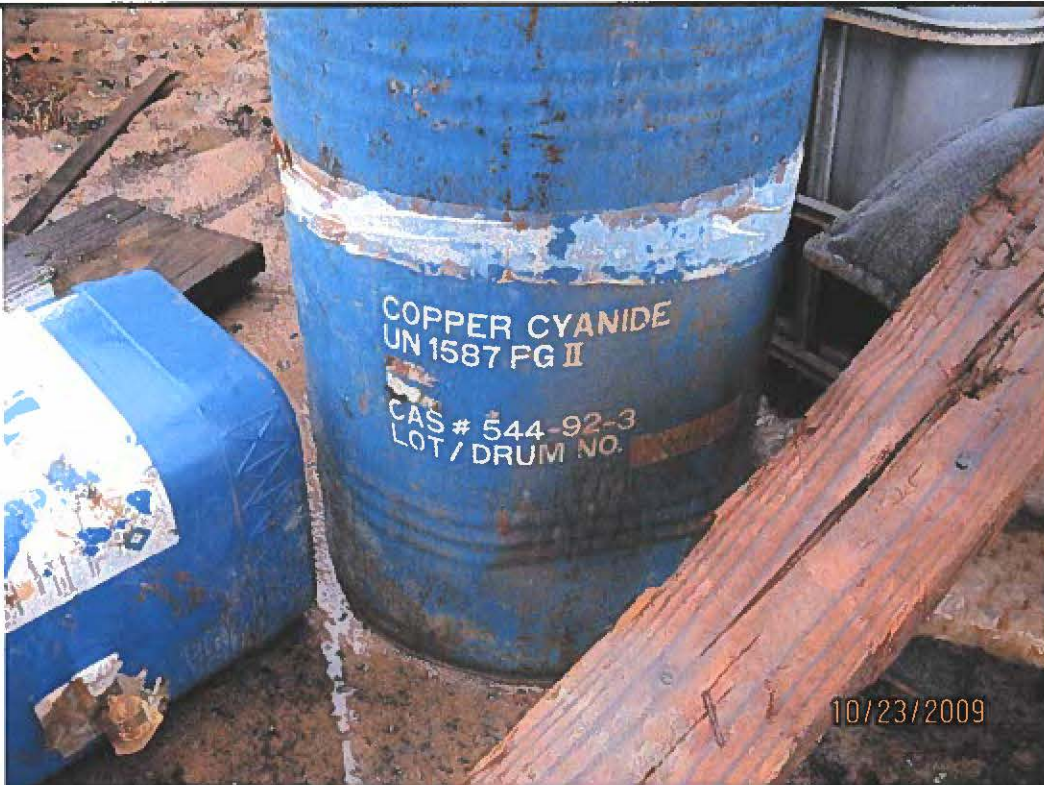
Explanation: Pre treatment area. 55 gallon container of sulfuric acid.



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 35	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment area. 55 gallon container of sulfuric acid.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 36	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment area. 55 gallon container of "good" sulfuric acid.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 37	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment Area. 15 gallon container Copper Cyanide	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 38	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre Treatment Area. Reflecta Maintenance Nickel Plating Agent.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 39	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre treatment area. Full 275 gallon tote	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 40	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Effluent discharge port to county sewer system.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 41	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Pre-treatment area. Note full 275 gallon tote, photo right.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 42	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Small pile of ocher colored material out side of building.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 43	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Dark liquid under debris inside building. Note electric welder.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 44	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Dark liquid under debris inside building.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 45	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Reflecta Maintenance Nickel Plating Agent inside building.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
Photo #: 46	Photographer: R. Hardy
Date: 10/23/2009	
Explanation: Reflecta Maintenance Nickel Plating Agent inside building.	



Facility Name: HW Enterprise Inc./Peach Chrome Plating **Location:** Austell

Photo #: 47 **Photographer:** R. Hardy **Date:** 10/23/2009

Explanation: Nickel Sulfate Liquid. Pushed through North building wall.



Facility Name: HW Enterprise Inc./Peach Chrome Plating **Location:** Austell

Photo #: 48 **Photographer:** R. Hardy **Date:** 10/23/2009

Explanation: Nickel Sulfate Liquid. Pushed through North building wall.



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 49	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Panoramic sequence from entrance. Northwest look.



Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 50	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Panoramic sequence from entrance. North look. Note two 275 gallon totes.
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Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 51	Photographer: R. Hardy	Date: 10/23/2009
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Explanation: Panoramic sequence from entrance. Northeast look
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Facility Name: HW Enterprise Inc./Peach Chrome Plating	Location: Austell
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Photo #: 52	Photographer: R. Hardy	Date: 10/23/2009
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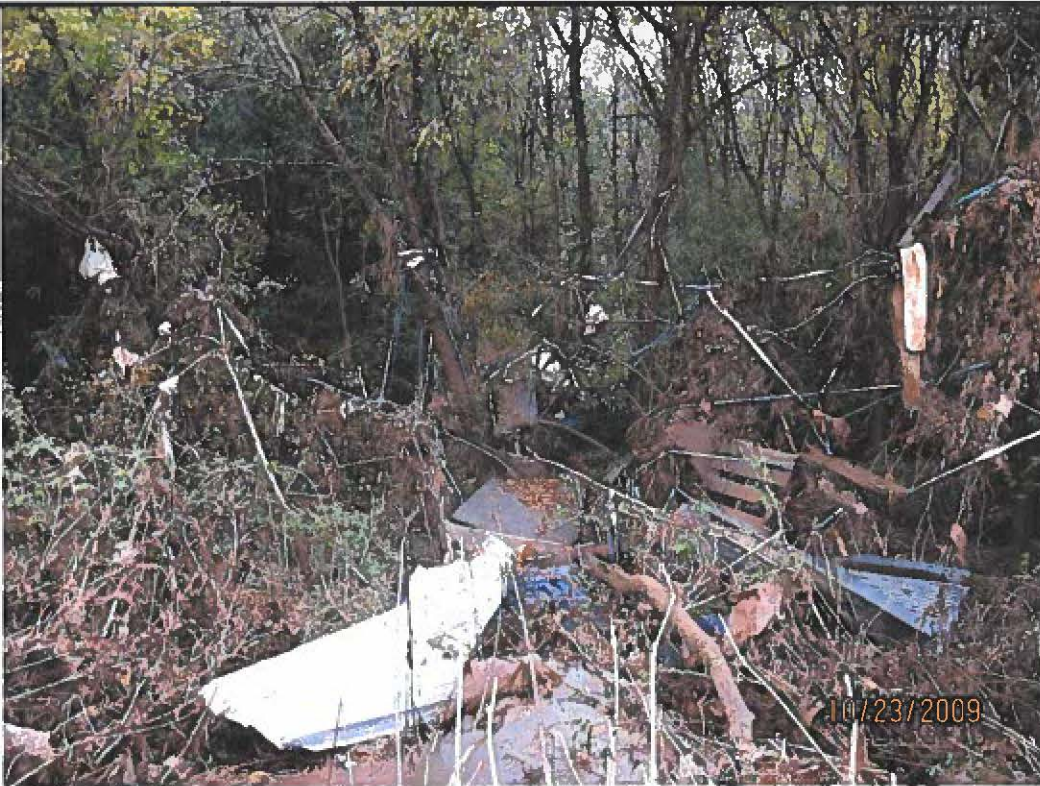
Explanation: Panoramic sequence from entrance. East Northeast look. Note pool of liquid.



Facility Name: HW Enterprise Inc./Peach Plating	Location: Austell
Photo #: 53 Photographer: R. Hardy	Date: 10/23/2009
Explanation: End of asphalt apron, looking toward ephemeral tributary.	



Facility Name: HW Enterprise Inc./Peach Plating	Location: Austell
Photo #: 54 Photographer: R. Hardy	Date: 10/23/2009
Explanation: Partially full 275 gallon tote in field between asphalt and ephemeral tributary	



Facility Name: HW Enterprise Inc./Peach Plating

Location: Austell

Photo #: 55

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Debris near ephemeral tributary.



Facility Name: HW Enterprise Inc./Peach Plating

Location: Austell

Photo #: 56

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Debris near ephemeral tributary. Note drum photo bottom left.



Facility Name: HW Enterprise Inc./Peach Plating

Location: Austell

Photo #: 57

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Debris near ephemeral tributary. Note 275 gallon tote, photo left.



Facility Name: HW Enterprise Inc./Peach Plating

Location: Austell

Photo #: 58

Photographer: R. Hardy

Date: 10/23/2009

Explanation: Looking back toward industrial park from field near ephemeral tributary.

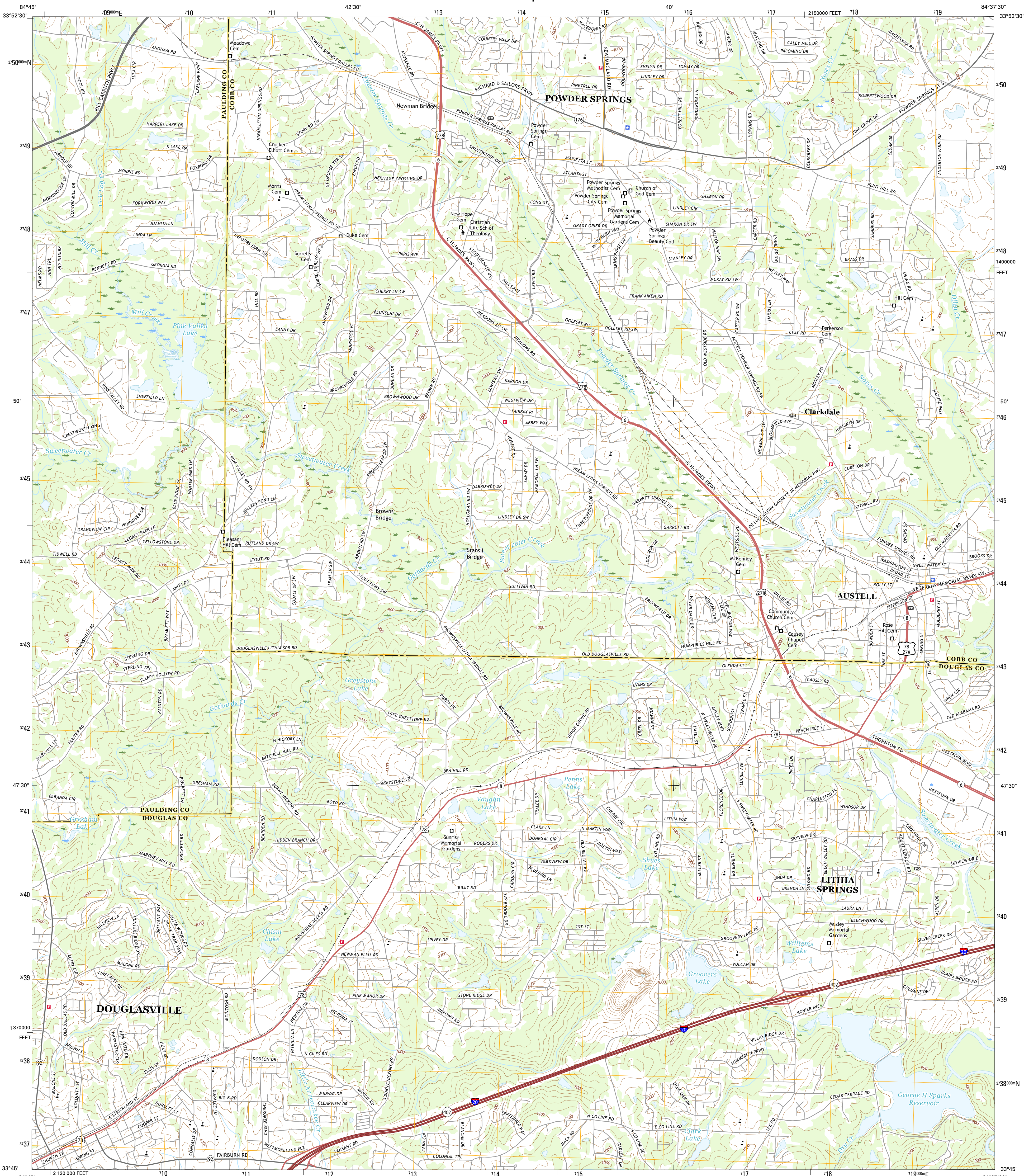
SELECTED REFERENCE #8



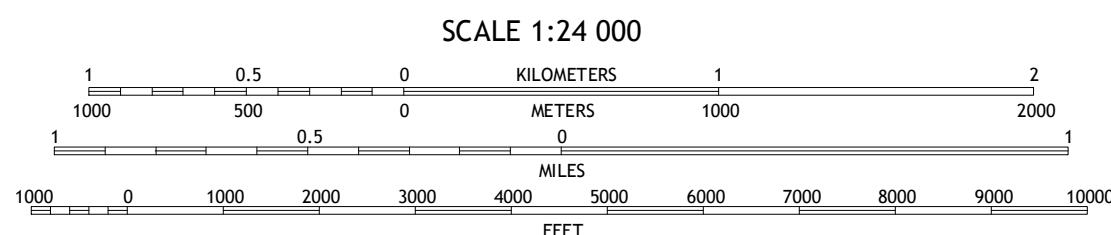
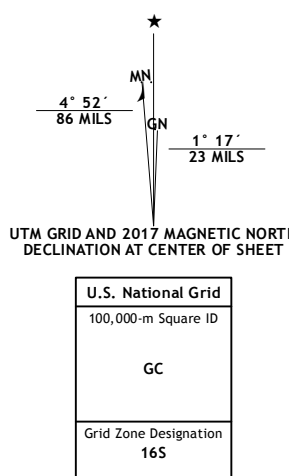
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



AUSTELL QUADRANGLE
GEORGIA
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 16S
10 000-foot ticks: Georgia Coordinate System of 1983 (west zone)
This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.
Imagery.....NAIP, December 2015
Roads.....U.S. Census Bureau, 2015 - 2016
Names.....GNIS, 2016
Hydrography.....National Hydrography Dataset, 2015
Contours.....National Elevation Dataset, 2001
Boundaries.....Multiple sources; see metadata file 1972 - 2016
Wetlands.....FWS National Wetlands Inventory 1977 - 2014



CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.19



ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

1	2	3
4	5	6
7	8	9

ADJOINING QUADRANGLES

1 Dallas
2 Lost Mountain
3 Marietta
4 Nebo
5 Mableton
6 Winston
7 Campbellton
8 Ben Hill

AUSTELL, GA
2017



SELECTED REFERENCE #9

DOUGLASVILLE, GEORGIA (092791)

Period of Record Monthly Climate Summary

Period of Record : 6/13/1940 to 11/30/2004

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)					Insuff	icient	Data						
Average Min. Temperature (F)					Insuff	icient	Data						
Average Total Precipitation (in.)	5.32	4.82	6.02	4.68	4.46	4.27	5.00	3.69	3.99	3.05	3.98	4.34	53.63
Average Total SnowFall (in.)	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

Max. Temp.: 0% Min. Temp.: 0% Precipitation: 95.8% Snowfall: 95.1% Snow Depth: 94.8%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Southeast Regional Climate Center, sercc@climate.ncsu.edu

SELECTED REFERENCE #10

AVERAGE ANNUAL RAINFALL AND RUNOFF IN GEORGIA, 1941-70

**ROBERT F. CARTER
AND
HAROLD R. STILES**

Prepared as part of the
Accelerated Ground-Water Program
in cooperation with the
Department of the Interior
United States Geological Survey

Department of Natural Resources
Joe D. Tanner, Commissioner

Environmental Protection Division
J. Leonard Ledbetter

Georgia Geologic Survey
William H. McLemore

ATLANTA

1983

 **HYDROLOGIC ATLAS 9** 

INTRODUCTION

The source of freshwater in Georgia is rainfall.¹ What happens to the water after it reaches the ground depends upon many factors such as rate of rainfall, topography, soil condition, density and type of vegetation, and temperature. The proportion of rainfall that runs off as surface water varies considerably from one area of the State to another. This may be readily noted by comparing differences in patterns and in average annual volumes displayed on maps showing average annual rainfall and runoff (figs. 1 and 2). This atlas presents average annual rainfall and runoff values for the base period 1941-70; demonstrates areal variations in the relationship of these two climatic factors; explains some of the reasons for the differences in the relationship; and shows the year-to-year variability of average annual values for the base period.

FACTORS AFFECTING RAINFALL-RUNOFF RELATIONSHIPS

Areas having high rainfall tend to be areas of high runoff and conversely areas having low rainfall tend to be areas of low runoff. However, the amount of rainfall is only one of the factors affecting the amount of runoff.

The annual runoff from an area is greatly influenced by the evaporation potential of the atmosphere and the extent to which water remains on or near the land surface to sustain evaporation from land and water surfaces and transpiration by plants. In short, any part of the rainfall that is taken up by evapotranspiration cannot produce runoff from the area.

For water to be evaporated or transpired, it must remain on the land surface or in the soil within reach of plant roots. The extent to which this occurs is determined by the topographic and geologic characteristics of the area. For example, steep land slopes and relatively impermeable soils promote rapid runoff from the area, thereby reducing the opportunity for water to be evaporated or transpired. Flat land and surface depressions promote the ponding of water, which in turn promotes evapotranspiration. Highly permeable soils and substrata promote the rapid infiltration of water, which greatly reduces the opportunity for water to be evaporated, especially if the water table is well below land surface. Poor soils that support only sparse vegetation contribute to low transpiration even if abundant moisture is available in a shallow water table. Any water that enters the subsurface-flow system may eventually emerge in surface streams where it again becomes available for evaporation.

Man's activities can also affect runoff. The diversion of water from one basin to another reduces the runoff from the losing basin and increases the apparent runoff from the gaining basin. The impounding of surface water increases evaporation and irrigation increases evapotranspiration, thereby decreasing runoff. Urbanization also affects runoff. Impervious areas, such as roads, tend to increase overland flow and decrease recharge to the subsurface-flow system of the area. The more rapid removal of a greater part of the available water tends to decrease evapotranspiration and increase runoff from the area.

Significant differences in rainfall-runoff relationships may be demonstrated between physiographic provinces (fig. 5), but these relationships also vary considerably due to local conditions within physiographic provinces. For example, in Taylor and Marion Counties, an area east of Columbus, runoff is as much as 24 inches, about half of the 50 inches of rainfall; whereas in part of Lee County farther south, runoff is only 12 inches, or one-fourth the 48 inches of rainfall. Both of these areas are in the upper Coastal Plain. In Taylor and Marion Counties, much of the soil is very porous and infiltration rates are high. Vegetation is relatively sparse over large areas and evapotranspiration is low. In Lee County more of the rainfall remains on or near the surface and dense vegetation is common, and this results in high evapotranspiration.

ACCURACY

The maps of rainfall and runoff (figs. 1 and 2) were constructed as accurately as was practicable using data available for the period 1941-70. If data on these maps are used as indications of probable future hydrologic events, they are subject to time-sampling error and to space-sampling error. The magnitude of the time-sampling error depends on how well the hydrologic events during the base period 1941-70 represent hydrologic events during the future. The probable magnitude of these errors for data-collection points may be estimated by standard statistical methods (Hardison, 1969), but this has not been attempted here because the maps show lines of equal value rather than data-collection points. The magnitude of the space sampling error depends on the density and geographical spacing of gage sites and on how well these sites represent conditions in nearby areas.

The rainfall map is based on records for 120 rain gages, located mostly in Georgia and evenly spaced throughout. Neighboring gages were in generally good agreement, an indication that each gage fairly well represents nearby areas. There are, however, some exceptions where the density of gages may be insufficient to show variability in the average rainfall pattern. For example, in mountainous areas abrupt changes in land elevation cause uneven distribution of rainfall (geographic effect). Large metropolitan areas have been observed to experience higher rainfall rates than neighboring areas and to have a "rain shadow" downwind in the direction of the prevailing wind. Land areas very near the coast may expect high rates of rainfall from the "sea breeze effect," a result of warm moist air from the ocean being uplifted as it flows over land heated by solar radiation.

The average runoff map is based on records for 148 stream-gaging stations well spaced throughout the State. Because of the many factors that can affect the amount of runoff from land surfaces, anomalies and variations from generalized patterns are more likely to occur with runoff than with rainfall.

In mountainous areas, sharp differences in rainfall amounts and in surface gradients over short distances produce erratic patterns of runoff that are difficult to delineate. Even if they were accurately known, depiction would be difficult at the scale of the maps used here. The lines of equal value shown in mountainous areas are based on runoff from fairly large areas (50 square miles and greater) and should be regarded as averages for areas that are at least 30 square miles.

In areas where very different geologic conditions occur within short distances, the runoff characteristics may also be very different from adjacent areas. For example, immediately south of the Fall Line there are areas characterized by very porous sand and gravel formations that have high infiltration rates and support little vegetation. Streams in these areas exhibit runoff characteristics quite different from nearby streams north of the Fall Line, in the Piedmont province. The characteristics also are different from streams farther south in the Coastal Plain, where infiltration rates may be high but where more abundant vegetation draws on soil moisture. The lines of equal runoff for many areas across the State just south of the Fall Line should be regarded as approximations. The density of stream-gaging stations there is insufficient to accurately depict the existing complex patterns of runoff characteristics. Runoff patterns are also uncertain in areas of karst topography near the Georgia-Florida State line and in unglaciated areas near the coast.

Nevertheless, the lines of equal value on the runoff maps fit the gaging-station data, on which they are based, quite well. As a test, deviations of observed runoff from corresponding runoff shown by the map were determined. The average of the absolute values of these deviations was 1.0 inch and the standard deviation was 1.1 inches. Considering that the minimum runoff for any area of the State is about 10 inches, it seems that the map represents runoff for most areas with an error of less than 10 percent.

¹Snowfall is relatively common in Georgia, but almost all precipitation is rainfall; therefore, for the purpose of simplicity, the term rainfall will be used instead of precipitation.

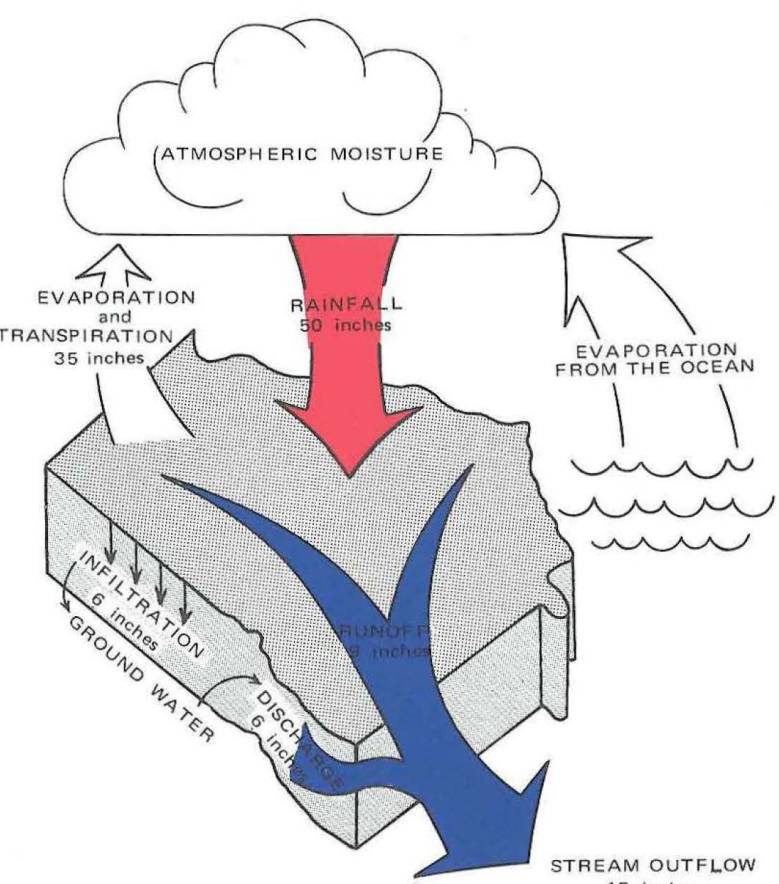


Figure 3.—The annual water cycle in Georgia.

Some of the principal components of the annual water cycle, commonly called the hydrologic cycle, can be measured with the possible exception of transpiration by plants. Rainfall and runoff are the components most practicable to observe systematically.

EXPLANATION

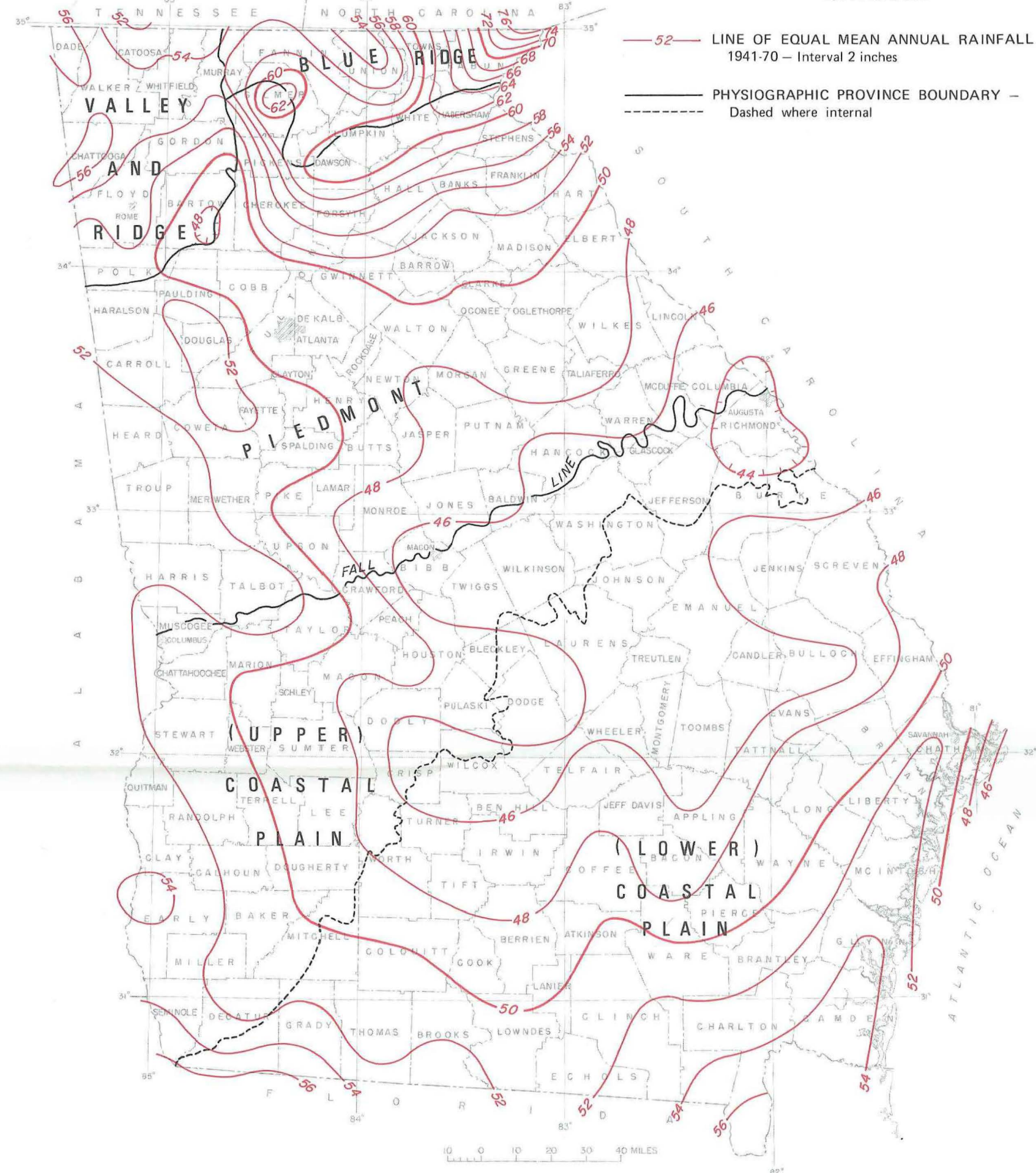


Figure 1.—Average annual rainfall in Georgia, 1941-70, and physiographic provinces.

The State received an average of 50 inches of rainfall per year, which varied locally from less than 44 inches to more than 76 inches, and also varied greatly from year to year.

The map was prepared from data furnished by the National Weather Service and was reviewed by that agency. Rainfall data are collected at specific points, well distributed throughout the State, and provide point samples of the amount of rainfall that occurred. From

these samples, data interpolations and extrapolations were made and approximate lines of equal value were drawn. This process is similar to the method of compiling topographic maps using areally distributed points of known land elevation. The map of average annual rainfall shown here is a reasonable representation of average annual rainfall for the State during the indicated time period, but caution should be used in interpolating between lines of equal value on the map, particularly in mountainous areas.

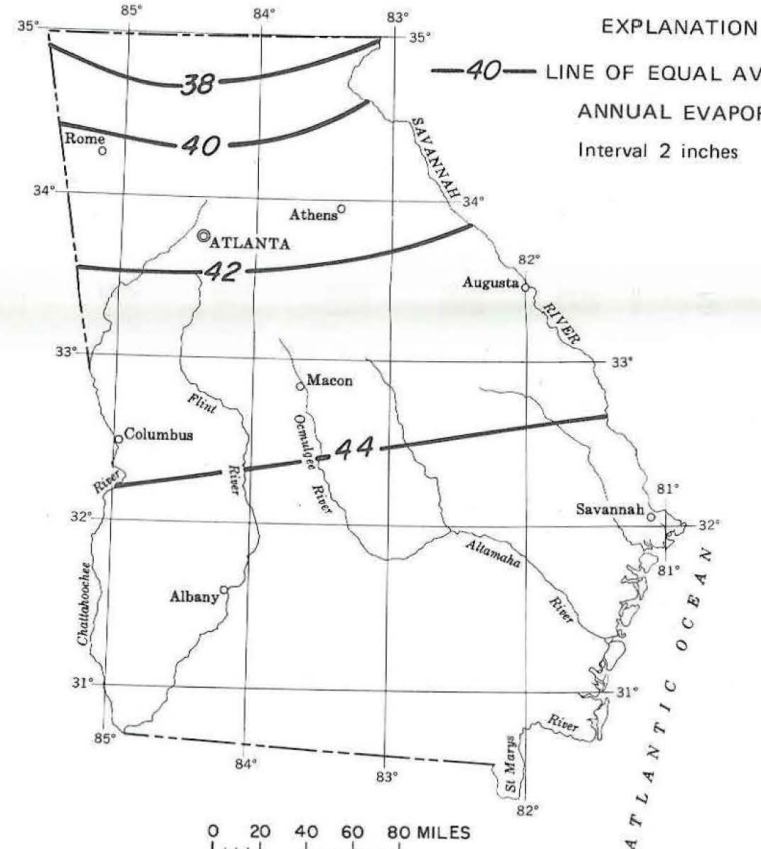


Figure 4.—Average annual lake evaporation for 1946-55 (from Kohler and others, 1959).

The evaporation potential of the atmosphere is greater in southern than in northern Georgia. Thus, on the basis of evaporation potential of the atmosphere, the annual runoff should be greater in the north than in the south if all other factors are constant.

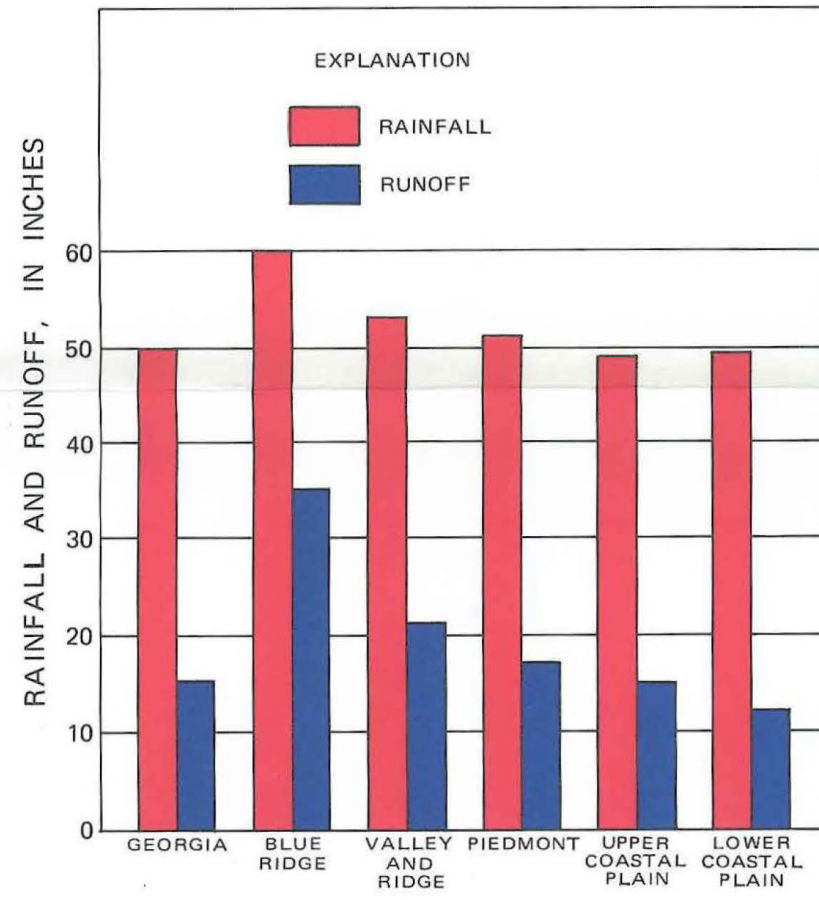


Figure 5.—Average annual rainfall and runoff in the State and by physiographic provinces, 1941-70.

The relationship between rainfall and runoff is complex and has many anomalies and local variations. With the exception of the mountainous area in the northeast, average annual rainfall in Georgia is fairly uniformly distributed, that is, it varies no more than 10 percent from the average of 50 inches. On the other hand, average annual runoff, again excepting the mountainous northeast, varies about 50 percent from the average of 15 inches. The general effect of geology and physiography is illustrated by rainfall-runoff relationships for major physiographic provinces. In the Blue Ridge province, an area of crystalline rocks and steep land slopes, runoff is 58 percent of the 59.8 inches of rainfall. In the Piedmont province, an area of crystalline rocks that has flatter slopes than the Blue Ridge province, runoff is 33 percent of 50.5 inches of rainfall. In the Valley and Ridge province, an area of sedimentary rocks and varied land slopes, runoff is 39 percent of 53.3 inches of rainfall. In the Coastal Plain, an area of sedimentary rocks, generally porous soils, and relatively flat land slopes, runoff is 26 percent of 49.1 inches of rainfall. The Coastal Plain is subdivided into "upper" and "lower" zones (figs. 1 and 2) as has been done in previous studies (Carter and Putnam, 1977), and runoff is 31 percent of 49.0 inches of rainfall in the upper zone and 24 percent of 49.1 inches of rainfall in the lower zone.

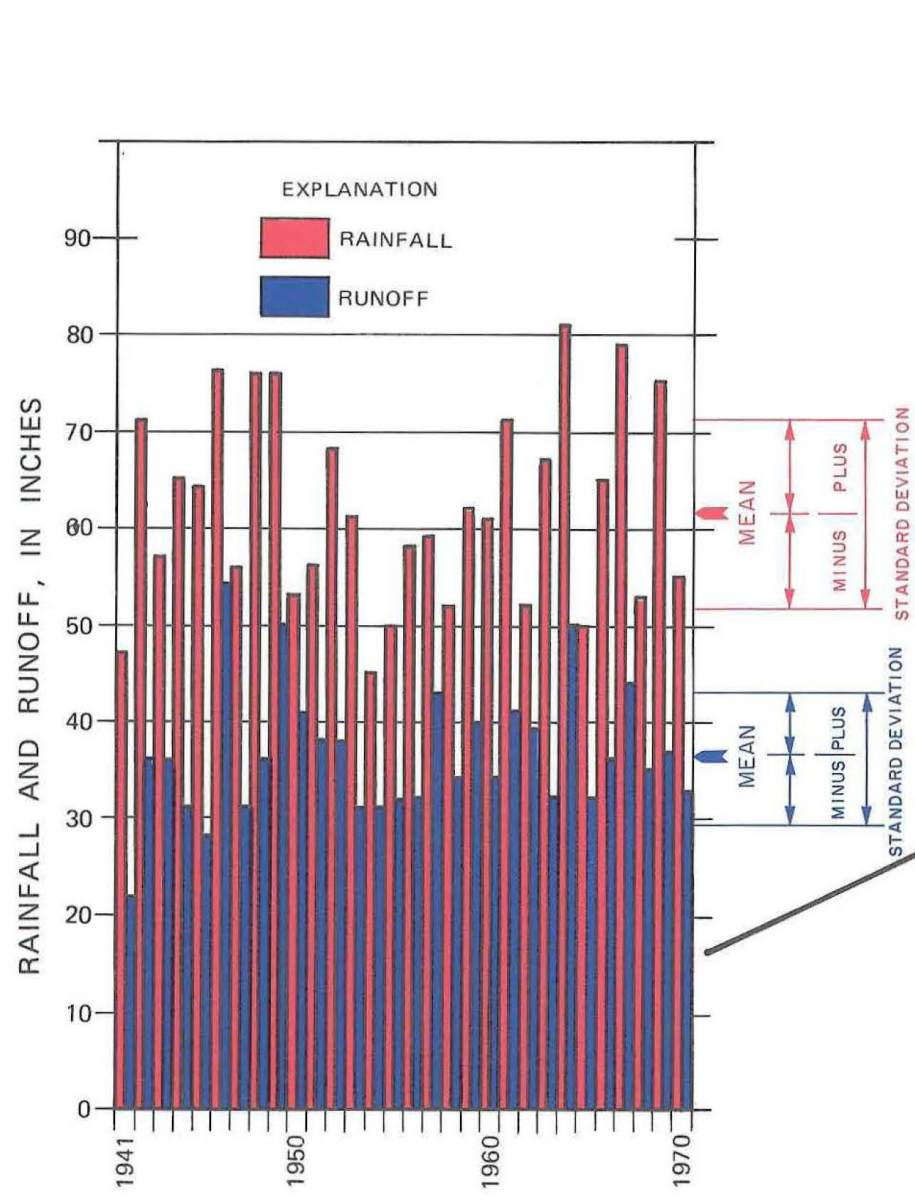


Figure 6A.—Average annual runoff at Toccoa River near Dial and average annual rainfall nearby, 1941-70.

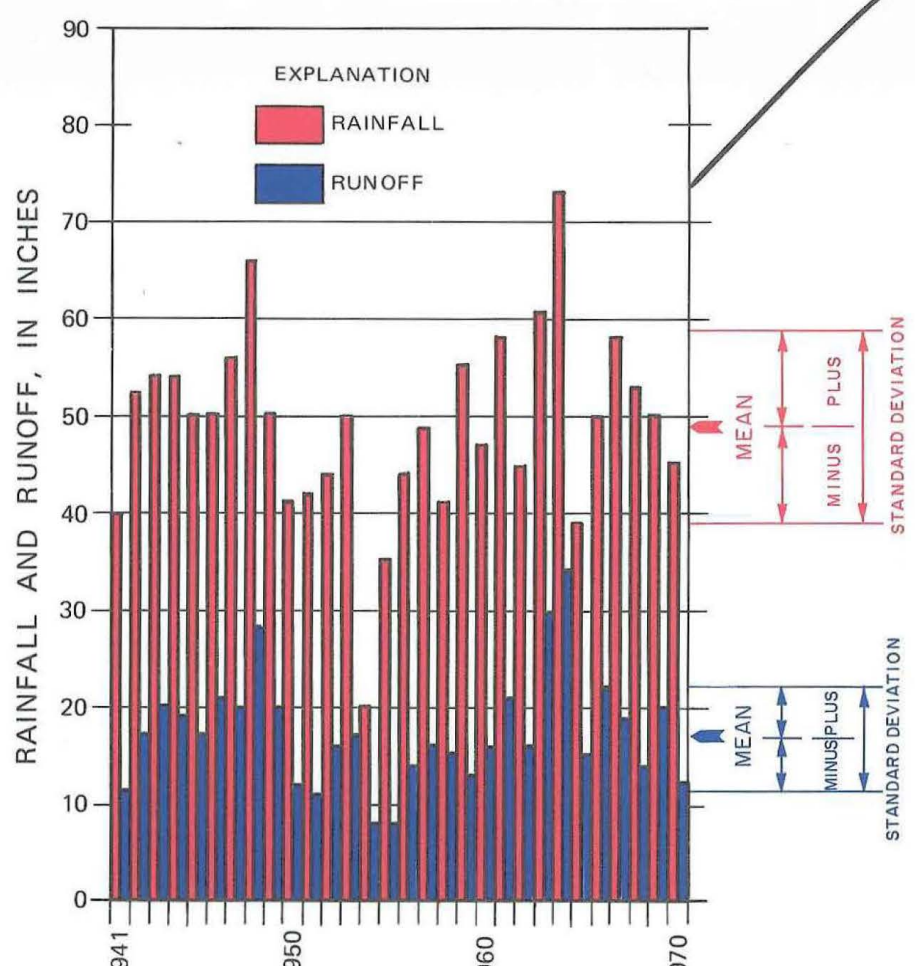


Figure 6B.—Average annual runoff at Apalachee River near Buckhead and average annual rainfall nearby, 1941-70.

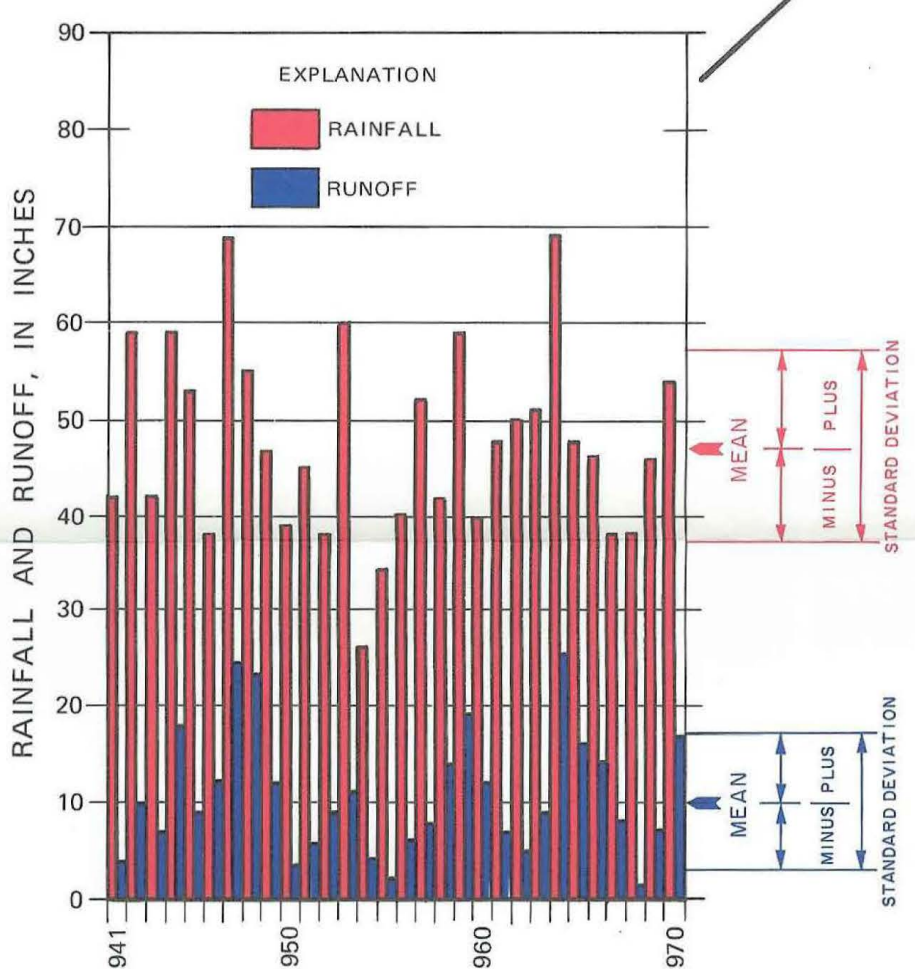


Figure 6C.—Average annual runoff at Alapaha River near Alapaha and average annual rainfall nearby, 1941-70.

Rainfall and runoff vary with time as well as with location. The annual runoff can vary several fold between extremely wet and dry years, especially in areas such as the Coastal Plain where the average runoff is a fairly small percentage of the average rainfall.

These graphs of average annual rainfall and runoff are for sample streams and for nearby rain gages in the Blue Ridge province (fig. 6A), in the Piedmont province (fig. 6B), and in the Coastal Plain (fig. 6C). They do not exhibit trends or recognizable cyclic patterns. They do show examples of "persistence," the tendency of wet or dry years to cluster. This effect has been noted by many investigators (Dawdy and Matalas, 1964).

The mean and standard deviation (the range of deviations from the mean which includes approximately two-thirds of the occurrences) of each set of data are indicated on each graph. The standard deviations of the annual rainfall data, in inches, at the three sites are about the same. The mean of the annual rainfall in the mountainous Blue Ridge province is higher than at the other two sites which have about the same mean. The standard deviations of the annual runoff data, in inches, at the three stream sites are also about the same. However, the mean of the annual runoff is high in the Blue Ridge province, somewhat lower in the Piedmont province, and even lower in the Coastal Plain.

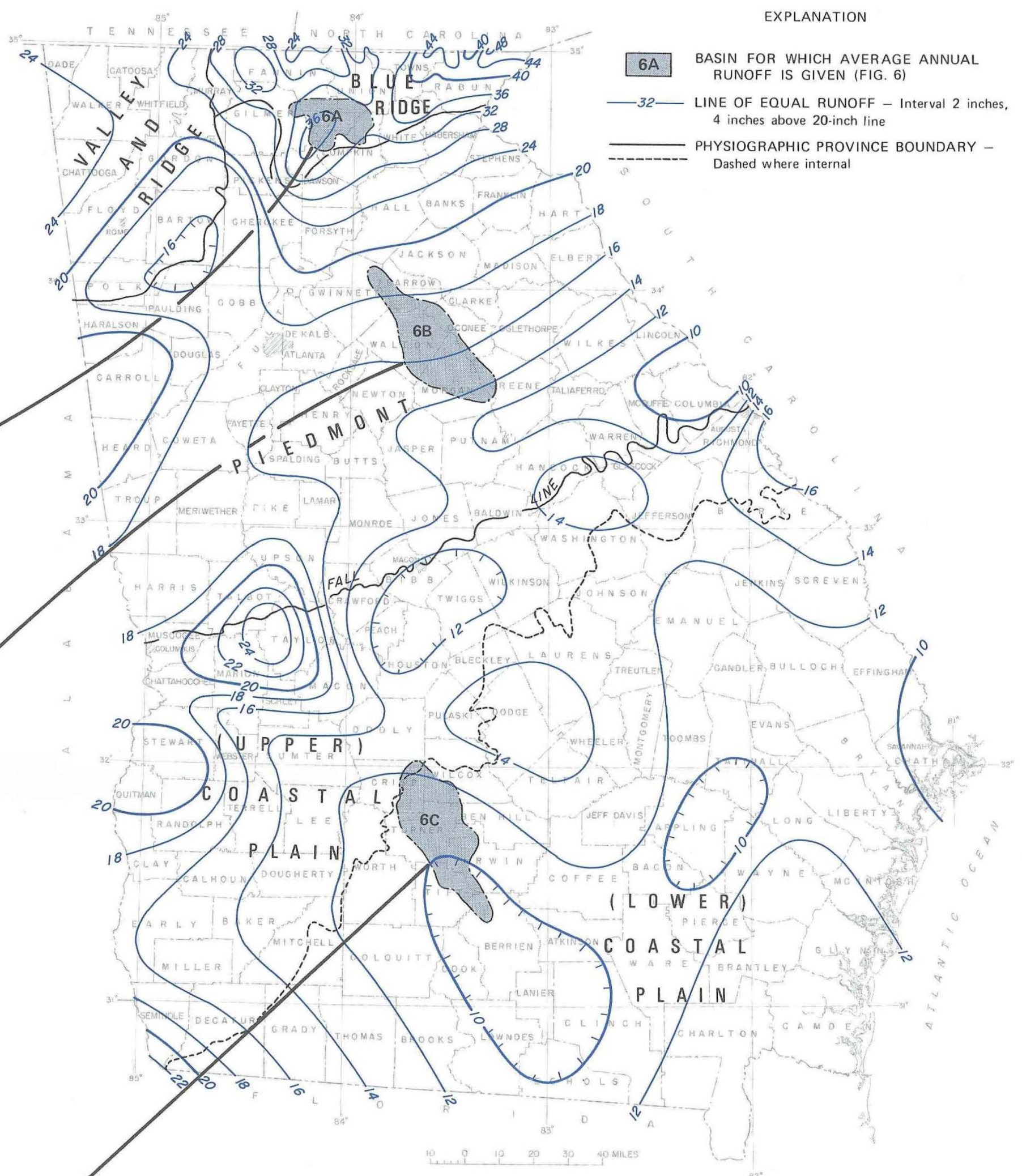


Figure 2.—Average annual runoff in Georgia, 1941-70, and physiographic provinces.

The average annual runoff for the State was about 15 inches, which varied locally from less than 10 inches to more than 48 inches, and varied greatly from year to year.

Surface-water runoff values are not point-sample data. Although the data are observed at points (stream-gaging stations), the computed runoff at each gage represents an integrated result from the entire contributing area, expressed in terms of depth of water as though it were uniformly distributed over that area. This presents a problem in logic when it is desired to construct a map such as is shown here with lines of equal value representing areal distribution of runoff. The task is not analogous to construction of a topographic map. For example, between two points of unequal elevation on a land surface all intermediate elevations must occur, but between two points of unequal runoff, it is unlikely that all intermediate values of runoff occur. Surface conditions can change abruptly from nearly impervious (high

runoff) to very pervious (low runoff). In arid regions many areas experience zero or near zero flow during long periods even with normal rainfall.

However, maps of average runoff can be constructed for many areas and such maps depict useful and reasonably accurate representations of local and regional variations in runoff. This map was prepared by plotting runoff data near the centroid of the drainage basin contributing to the runoff, and by treating these plotted data as point samples for drawing lines through points of approximate equal value. For long, large streams the increment in runoff between two gages was used, where practicable, to represent the runoff from the intervening area between the gages. Runoff from coastal areas, which is generally not measured because of tidal effect on the streams, was estimated on the basis of gaged runoff from nearby inland areas.

SELECTED REFERENCES

- Callahan, J. T., Newcomb, L. E., and Geurin, J. W., 1965, Water in Georgia: U.S. Geological Survey Water-Supply Paper 1762, 88 p.
- Carter, R. F., and Putnam, S. A., 1977, Low-flow frequency of Georgia streams: U.S. Geological Survey Water-Resources Investigations 77-127.
- Chow, V. T., 1964, Handbook of applied hydrology: New York, McGraw-Hill Book Company, p. 8-28.
- Dawdy, D. R., and Matalas, N. C., 1964, Analysis of variance, covariance, and time series, in Chow, V. T., Handbook of applied hydrology: New York, McGraw-Hill Book Company, p. 8-68 to 8-90.
- Hardison, C. H., 1969, Accuracy of streamflow characteristics, in Geological Survey Research 1969: U.S. Geological Survey Professional Paper 650-D, p. D210-D214.
- Hoyt, W. G., and others, 1936, Studies of relations of rainfall and runoff in the United States: U.S. Geological Survey Water-Supply Paper 772, 301 p.
- Inman, E. J., 1971, Flow characteristics of Georgia streams: U.S. Geological Survey Open-File Report, 262 p.
- Kohler, M. A., Nordenson, T. J., and Baker, D. R., 1959, Evaporation maps for the United States: U.S. Weather Bureau Technical Paper 37, 13 p., 5 pl.
- Thomson, M. T., Herrick, S. M., and Brown, Eugene, 1956, The availability and use of water in Georgia: Georgia Department of Natural Resources, Georgia Geologic Survey Bulletin 65, 329 p.
- U.S. Department of Commerce, 1959, Climate of the States, Georgia: Climatology of the United States No. 60-9, U.S. Weather Bureau, 21 p.

AVERAGE ANNUAL RAINFALL AND RUNOFF IN GEORGIA, 1941-70

By
Robert F. Carter and Harold R. Stiles
1983

SELECTED REFERENCE #12



Complaint Tracking System

Complaint ID 59791

Status: *Approved/Closed*

Reviewed By John Fonk, November 6, 2009, 12:00 AM
Review Comments [Not entered]
Current Assigned Office Land Protection Branch
Current Assigned Associate Richard Hardy , richard.hardy@dnr.state.ga.us
Date Assigned October 23, 2009, 12:00 AM
Date Received October 23, 2009, 12:11 PM

Caller

Name DARYL SAWYER
Represents COBB COUNTY
Caller Address 662 SOUTH COBB DR
MARIETTA GA 30060
Primary Phone 770-528-8217 Office
Secondary Phone [Not entered]
Other Phone [Not entered]
Email Address [Not entered]

Complaint

RELEASE OF CHROMIC ACID, NITRIC ACID, HEXAVALENT CHROMIUM DUE TO FLOODING FROM PEACHTREE CREEK

Primary Concern Hazardous material spill
Secondary Concern [Not entered]
Location of Complaint 5491 POWDER SPRINGS RD.
AUSTELL, GA 30106
Direction to Complaint I-20 W TO THORNTON RD EXIT.(HWY 278) - GO RIGHT. CONTINUE TO WESTSIDE RD - GO RIGHT-
CONTINUE TO POWDER SPRINGS RD. GO RIGHT TO #5491
City of Complaint AUSTELL
County of Complaint Cobb

Source

Facility ID Number	GAR000019950
Source Contact	JERRY HART OR SAM WEBBER
Source Name	HWB ENTERPRISES FORMERLY PEACH CHROME PLATING
Source Address	5491 POWDER SPRINGS RD. AUSTELL, Georgia 30106
Primary Phone	770-732-9300 <i>Office</i>
Secondary Phone	[Not entered]
Other Phone	[Not entered]
Email Address	[Not entered]

Actions

October 23, 2009 — *Initial Investigation*

Investigator	rhardy
Entered By	Richard Hardy, 10/29/2009 12:00 AM
Comments	R Hardy And John Fonk Of Epd Investigated The Facility And Site. A Release To The Environment Was Confirmed. Epa And Epd Emergency Response Teams Were Notified. An Emergency Response Cleanup And Investigation Is Being Conducted By Region Iv Epa.

October 29, 2009 — *Initial Investigation Report*

Investigator	rhardy
Entered By	Richard Hardy, 11/6/2009 12:00 AM
Comments	Trip Report Completed. A Copy Was Sent To Epa Osc Randy Nattis. The Site Has Been Referred To Epa.

Attachments

None.

Audit History

Received By	Richard Hardy, October 23, 2009, 12:11 PM
Entered By	Richard Hardy, October 23, 2009, 12:11 PM

Audit history prior to September 30, 2017 may be incomplete.

Action Date	Action	From	To	Date Accepted	Transferred By	Comment
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Action Date	Action	From	To	Date Accepted	Transferred By	Comment
November 6, 2009, 12:00 AM	Closed	Land Protection Branch John Fonk		[N/A]	John Fonk	
October 29, 2009, 12:00 AM	Submitted For Review	Land Protection Branch Richard Hardy	John Fonk	[N/A]		
October 23, 2009, 12:00 AM	New			[N/A]	Richard Hardy	
October 23, 2009, 12:00 AM	Assigned		Land Protection Branch Richard Hardy	October 23, 2009, 12:00 AM		

SELECTED REFERENCE #13

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Sunday, October 25, 2009
From: Randy Nattis, On Scene Coordinator

Subject: Initial POLREP
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	1	Site #:	B443
Reporting Period:	10/23/2009	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	GAD984318634	Contract #	
RCRIS ID #:			

Site Description

Chrome Plating is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

EPA OSC Nattis, START contractor Tetra Tech and ERRS contractor Environmental Restoration mobilized to the chrome plating facility in Austell, Georgia that had reportedly discharged hazardous material and hazardous waste from the facility. The discharge was approaching the adjacent Sweetwater Creek. OSC Nattis, Austell PD and HAZMAT meet on site per the request of GA EPD hazwaste division Friday evening at approximately 1800. EPA, START, ERRS, and Austell police and HAZMAT conduct a site walk through. Upon first investigations, it appeared that a siphon was used to empty the electroplating Vat of material onto the ground within the facility which began to migrate under the walls, through the parking lot and towards Sweetwater creek. Using pH paper, the remaining liquid with in the Vat had a pH of 2, the liquid on the floor had a pH of 3 and slowly neutralized to a 6 as the liquid approached the Sweetwater creek. It should be noted that during this investigation, the weather conditions were heavy rain, increasing the mobility of the discharged liquid as well as added to the dilution of the material. After further investigations it was determined that the Vat contained Chromic Acid. The rains stopped and all discharged materials were bermed into a retention area on site. Continued investigations reveled numerous small containers, drums, and totes all mislabeled, unsecured, leaking, and turned over or at risk of leaking. The few labeled containers and drums suggested incompatibles (acids and bases, oxidizers and cyanide) improperly stored within feet of each other and open to the environment. The site was secured by the Austell PD and all parties demobilized for the evening to continue site work at 0800 on the 24th

OSC Nattis contacted EPA's CID division to mobilize to site first thing on the 24th.

Planned Removal Actions

Saturday's planned activities included labeling and sampling containers, conducting hazard categorization of collected samples, identifying waste streams and staging containers accordingly, and debris removal with the goal of stabilizing the facility.

Next Steps

Work with CID to identify possible criminal activities.

Key Issues

Incompatibles, site unsecured and an open to the environment flocking system that appears to be discharging directly to the POTW without proper treatment.

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #14

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Sunday, October 25, 2009
From: Randy Nattis, On Scene Coordinator

Subject: Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	2	Site #:	
Reporting Period:	10/24/2009	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA/OPA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	
FPN#			

Site Description

Chrome Plating is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

EPA, START, ERRS, Austell PD and CID all met upon arrival to site at approximately 0900. Upon arrival, it is noted that an individual is inside the building. Mr. Terry Heart is the son of the owner, Jerry Heart, and the operator of this facility. CID and Austell PD conduct an investigation and interview of Mr. Heart. Mr. Heart helps identify numerous containers and drums and the contents of the Vat.

START and ER collect all of the RCRA empty containers and construct a staging area. START labels and logs the remaining containers for sampling. After samples are collected, START conducts hazard categorization (HazCat) testing. ER clears debris, prepares the staging area, and stages the containers for disposal.

CONTAINER INVENTORY

30 5-gal containers
1 1-gal container
1 2-gal container
25 55-gallon drums
3 250-gal totes
3 300-gal totes/poly containers
1 500-gal tank
1 600-gal tank
1 15-gal container
1 30-gal container
1 65-gal container

WASTE STREAMS IDENTIFIED

Acids (including chromic and sulfuric)
Oxidizers
Bases (including copper cyanide)

Planned Removal Actions

Activities for tomorrow will include completion of container staging activities, completion of sampling and HazCat activities, pumping or vacuuming standing water, clean up of contaminated debris and placement into roll-off boxes.

Key Issues

Incompatibles, site unsecured and an open to the environment flocking system that appears to be discharging directly to the POTW without proper treatment. The Cobb county water dept may be on site monday to deal up the outfall from the facility to prevent further discharges from site entering the POTW

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #15

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Sunday, October 25, 2009
From: Randy Nattis, On Scene Coordinator

Subject: Response on going
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	3	Site #:	
Reporting Period:	10/25/2009	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA/OPA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	
FPN#			

Site Description

Chrome Plating is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

START and ERRS completed the construction of the staging area within the 'Painting' room. START completed sampling all containers for HAZCAT and completed profile sampling for disposal.

ERRS cleared all debris from the main warehouse building. ERRS also started pumping and bulking all liquid to Baker tanks, including liquids from the flocking system and the remain materials from the Vat.

Planned Removal Actions

START will take composite sediment and soil samples in the drainage pathways to determine if any additional assessment or removals will be require on site once stabilization is complete.

ERRS will continue bulking liquids into Baker tanks

Operations will continue at 0700 on 26OCT2009

Key Issues

Hexavelant chromium in soils / sediments throughout facility and property leading to Sweetwater Creek.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid	1634		
Neutral Liquids	556		
Acid Liquids	440		
Oxidizing Acidic Liquid	385		
Basic Solids	236		
Basic Liquids	186		
Oxidizing Solids	42		
Acidic Solids	28		
Cyanide Solids	8		
Neutral Solids	8		
Oxidizing Neutral Liquid	3		

Oil and Water	1.5		
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response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #16

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Monday, October 26, 2009
From: Randy Nattis, On Scene Coordinator

Subject: Response on going
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	4	Site #:	
Reporting Period:	10/26/09	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

Chrome Plating is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

Today, ERRSs mobilized a vacuum truck to the site and removed pools of standing water identified by START as containing chromium. Although at a pH of 4-5, the pools were a characteristic oxidizer (presumably from chromic acid contamination). The water was placed into temporary storage tanks. ER also pumped waste from outdoor treatment pits and placed it into additional storage tanks. By the end of the day, all waste was secured in a covered area of the building or inside temporary tanks, alleviating the effects from adverse weather. This includes two intact totes of waste oil apparently deposited on the rear of the property during the flood. The original generator of the waste oil is unknown, but EPA decided the treat the oil as if it were native to the site.

Based on conversations between OSC Nattis, START, and ERRSs, the 12 chemical waste streams identified through hazcat testing were concatenated into 8. Additionally, some of the containers from the wastewater treatment area were segregated until the applicability of certain waste codes was determined. A total of 3 rolloff boxes of non-hazardous debris have been generated.

Silt deposited by the flood in and around the building has been impacted by the release from the building. START collected soil samples from a grassy area around the main building and another grassy area around a satellite building. Additionally, today's sun and wind have dried out much of the silt in the parking lot. START sampled this to determine if there is a potential for fugitive dust emissions into the neighboring area. START also collected a sample of the dirt from the floor of the now empty building.

At the end of the day, all waste was secured in containers beneath a stable roof, out of the weather, and under the security of the City of Austell Police Department. Samples of potential impacted site soils have been collected to determine any possible impacts to human health in the vicinity.

Planned Removal Actions

Disposal profile samples will be analyzed with quick turn-around. ERRSs will use these results to determine disposal profiles and eventual disposal options. EPA expects to return to the site within 2 weeks to carry out off-site disposal. ERRS will be installing a temporary fence to help with any potential trespassers.

Next Steps

The soil and dust samples will be used by the removal branch to determine the need to further assess potential impacts to human health in the nearby population.

Key Issues

Security on site prior to disposal

Possibility of further migration of materials off site during heavy rains and dry windy days.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #17

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Wednesday, December 2, 2009
From: Randy Nattis, On Scene Coordinator

Subject: On going response
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	5	Site #:	
Reporting Period:	11/30/09 - 12/02/09	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

Chrome Plating is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

Due to additional heavy rains on site and sample results showing that hexavalent chromium exists in sediments within the facility and in the soils around the facility of up to ~30,000ppm (3%) additional ER activities have been required prior to any additional removal activities

ERRS

- ER personnel loaded three trucks (estimated total of 38 tons) with construction and demolition debris for transportation and disposal.
- ER personnel placed plastic sheeting over doorways and openings of the plating building to contain dust during cleaning operations.
- ER personnel scraped, swept, and pressure washed the floor inside the plating building to remove dust and debris contaminated with hexavalent chromium; the following provides a summary of wastes generated from these activities:
- 6 drums of solids
- 10 drums of waste water from pressure washing activities

START

- START conducted air monitoring and sampling activities using three DataRAMs and personal air sampling pumps.
- Particulate monitoring using the DataRAMs has indicated no readings above action levels
- Three air samples, which are listed below, were collected on 11-30-09 and were shipped for hexavalent chromium analyses:
- One collected from ER personnel working outside the building during site setup and removal of construction and demolition debris
- One collected from ER personnel working inside the building during scraping and sweeping activities; and
- One collected from the front of a business located across the parking area from the site

Planned Removal Actions

Using XRF and known migration pathways, ER will continue with removal of soils and additional cleaning of sediments within the facility.

Next Steps

Referral to EPA's removal program

Key Issues

Heavy Rains
Extremely high amounts of hexavalent chromium in sediments and soils
Trespassers and vandalism

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #18

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Friday, December 4, 2009
From: Randy Nattis, On Scene Coordinator

Subject: On going response
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	6	Site #:	
Reporting Period:	12/3/09	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

Chrome Plating is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

ERRS:

ER personnel removed soil from the vicinity of the trailer, paint booth building, and the vacant building east of the plating area. A total of approximately 10 cubic yards of soil were removed and stockpiled on plastic sheeting for future characterization and disposal.

START

START conducted air monitoring activities using three DataRAMs.
Particulate monitoring using the DataRAMs has indicated no readings above action levels.

Planned Removal Actions

Continued assessment - possible removal actions include
removal of concrete flooring inside and outside of the Facility.
removal of asphalt throughout parking lot
removal of soils underneath concrete, asphalt and exposed soil in migration pathways

Key Issues

hexavalent chromium in sediments and soils
Trespassers and vandalism

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

SELECTED REFERENCE #19

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Monday, December 14, 2009
From: Leonardo Ceron, On Scene Coordinator

Subject: Transition to Removal
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	7	Site #:	B443
Reporting Period:	December 6-11, 2009	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

This chrome-electroplater is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

ER personnel continued to remove the soil from the vicinity of the large plating operations building to stockpiles covered with plastic sheeting for future characterization and disposal. Sampling was conducted to further characterize the concrete of the three main buildings and the asphalt areas surrounding the buildings. All samples were submitted for speciated Chromium 6 analysis. Analytical results have identified Chromium 6 contamination. To Date approximately 2,400 gallons of F listed waste have been transported to a RCRA approved disposal facility.

START

START conducted air monitoring activities using three DataRAMs. Particulate monitoring using the DataRAMs has indicated no readings above action levels. Sampling was conducted from the soils surrounding and underneath the concrete pad in the main plating operations building. Additional soils samples were collected from exposed soils between the road and the site buildings. Any exposed soil areas within the Site were sampled via five oint composites. Analytical results have identified Chromium 6 contamination.

Planned Removal Actions

Continued assessment -
Once analytical data confirms actionable levels of Chromium 6 contaminant, a possible removal action may proceed. The removal action may include removal of concrete flooring inside and outside of the facility, removal of asphalt throughout parking lot and exposed soil in migration pathways.

Disposal of the existing overpacked and staged chemicals on will occur by December, 23, 2009.

Next Steps

Evaluation of Analytical data is currently being conducted by the EPA's R4 Technical Support Section, to determine the potential risk and threat associated with the identified Chromium 6 contamination at the Site.

Key Issues

hexavalent chromium in sediments and soils
hexavalent chromium data from concrete and soils
Trespassers and vandalism

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
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Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #20

**United States Environmental Protection Agency
Region IV
POLLUTION REPORT**

Date: Friday, January 22, 2010
From: Leonardo Ceron, On Scene Coordinator

Subject: Removal Action Pending
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	8	Site #:	B443
Reporting Period:		D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

This chrome-electroplater is located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

Current Activities

As of January 20, 2010, all chemical containers and overpacks, all bulked liquids and solid contamination from within the buildings on Site have been removed and properly disposed of. The Site is currently fenced and appropriate EPA notifications have been posted for public information access.

EPA's Technical Support Section (TSS) had provided a risk determination for this Site. The risk determination can be found in the documents section of the website.

Planned Removal Actions

EPA is currently processing an Action Memorandum to conduct a proposed removal action if approved. Upon approval of such action additional action and updates will be posted.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #21

**United States Environmental Protection Agency
Region IV
POLLUTION REPORT**

Date: Sunday, June 6, 2010
From: Leonardo Ceron, On Scene Coordinator

Subject: Transition From ER to Removal
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	9	Site #:	B443
Reporting Period:	May -June 2010	D.O. #:	EPS40704/74
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	GAD984318634	Contract #	
RCRIS ID #:			

Site Description

See Initial Pol Rep

Current Activities

On May 12, 2010 Region 4 signed a removal action memorandum to begin the fund lead removal. Please see the AM in the Documents section. Work at the Site began the week of May 26, 2010 with building inspections and demolition. Site work will include air monitoring and sampling of both soil and ground water.

Planned Removal Actions

The removal will include the demolition of the existing three buildings and an office trailer. Concrete and asphalt which exceeds the RAL's will also be removed. Surface water which contains hexavalent Chormium in concentratoins above the RAL will be collected and diaposed of accordingly.

Next Steps

Review of data from soils and surface water beneath the concrete and asphalt.

Key Issues

City of Austell water discharge limits.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #22

**United States Environmental Protection Agency
Region IV
POLLUTION REPORT**

Date: Friday, June 4, 2010
From: Leonardo Ceron, On Scene Coordinator

Subject: Initial Site Work
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	10	Site #:	B443
Reporting Period:	6/1/2010-6/4/2010	D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	GAD984318634	Contract #	EPS40704/74
RCRIS ID #:			

Site Description

See Initial Pol Rep

Current Activities

On May 12, 2010 Region 4 signed a removal action memorandum to begin the fund lead removal. Please see the AM in the Documents section. Work at the Site began the week of May 26, 2010 with building inspections and demolition. Demolition on main plating building including concrete pad was completed with concrete being staged for later removal from site. Surface water was pumped to an onsite frac tank

Planned Removal Actions

Additional demolition will continue to remove all structures on Site. The rental and use of a Frac Tank to capture on Site contaminated water for future disposal.

Next Steps

Concrete and water runoff issues will be addressed as limiting offsite water infiltration becomes a critical step in minimizing additional contaminated water on Site. Frac Tank use to prevent further onsite water runoff.

Key Issues

Prevention of ground water runoff, Disposal criteria from county to the local POTW.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Chromic Acid liquids	2462 gal		
Neutral Liquids	556		
Oil	550		
Basic Solids	318		
Basic Liquids	186		
Acidic Solids	28		
Cyanide Solids	8		
Non Haz debris	30 yd3		

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #23

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Wednesday, September 1, 2010
From: Timothy Neal, On Scene Coordinator

Subject: Final POLREP
Powder Springs Road Plating
5491 Austell Power Springs Road, Austell, GA
Latitude: 33.8200496
Longitude: -84.6419656

POLREP No.:	11	Site #:	B443
Reporting Period:		D.O. #:	
Start Date:	10/23/2009	Response Authority:	CERCLA
Mob Date:	10/23/2009	Response Type:	Time-Critical
Demob Date:	7/8/2010	NPL Status:	Non NPL
Completion Date:	7/8/2010	Incident Category:	Removal Action
CERCLIS ID #:	GAD984318634	Contract #	EPS40704/74
RCRIS ID #:			

Site Description

Austell Powder Springs Site was a chrome plating facility located at 5491 Powder Springs Road, Austell, Georgia. On September 24, 2009, this area experienced high flood waters reaching the roof of the facility as evidenced by water marks and a drum on the roof of the building. Sweetwater Creek is adjacent to the property. The site includes two open warehouses and an office trailer, which were severely damaged by the flood. Outside of the warehouses there are two concrete pits, one circular and one rectangular, both containing liquid. These pits are believed to be part of the facility's waste water treatment system.

EPA emergency responder, START contractor Tetra Tech and ERRS contractor Environmental Restoration mobilized to the chrome plating facility in Austell, Georgia that had reportedly discharged hazardous material and hazardous waste from the facility. The discharge was approaching the adjacent Sweetwater Creek. EPA OSC, Austell PD and HAZMAT meet on site per the request of GA EPD hazwaste division Friday evening at approximately 1800. EPA, START, ERRS, and Austell police and HAZMAT conduct a site walk through. Continued investigations revealed numerous small containers, drums, and totes all mislabeled, unsecured, leaking, and turned over or at risk of leaking. The few labeled containers and drums suggested incompatibles (acids and bases, oxidizers and cyanide) improperly stored within feet of each other and open to the environment. ERRS cleared all debris from the main warehouse building. ERRS also started pumping and bulking all liquid to Baker tanks, including liquids from the flocking system and the remaining materials from the Vat.

ER personnel removed the soil from the vicinity of the large plating operations building to stockpiles covered with plastic sheeting for future characterization and disposal. Sampling was conducted to further characterize the concrete of the three main buildings and the asphalt areas surrounding the buildings. All samples were submitted for Chromium 6 analysis. Analytical results identified Chromium 6 contamination in numerous samples collected from the surface soils around the site. EPA's Technical Support Section (TSS) had provided a risk determination for this Site. The risk determination can be found in the documents section of the website.

As of January 20, 2010, all chemical containers and overpacks, all bulked liquids and solid contamination from within the buildings on Site have been removed and properly disposed of. The Site is currently fenced and appropriate EPA notifications have been posted for public information access.

On May 12, 2010, Region 4 signed a removal action memorandum to begin the fund lead removal. Please see the AM in the Documents section. Work at the Site began the week of May 26, 2010 with building inspections and demolition. The removal will include the demolition of the existing three buildings and an office trailer. Concrete and asphalt which exceeds the RAL's will also be removed. Surface water which contains hexavalent Chromium in concentrations above the RAL will be collected and disposed of accordingly.

Current Activities

BUILDING DEMOLITION:

On June 9, 2010, ERRS personnel demolished the remaining buildings on the site. The materials were disposed and recycled.

SURFACE WATER MANAGEMENT:

During the removal action, heavy rains attributed to surface water collection in the contaminated zone. In

order to manage this surface water, a fractionation (frac) tank was used to contain the water. In addition, ERRS constructed an earthen berm along the western and northern boundaries of the site using clean fill material to minimize the runoff of surface water from the site into surrounding areas.

The contents of the frac tank were sampled by ERRS to determine the total chromium and hexavalent chromium concentrations. Based on consultation with the Cobb County Water System regarding the analytical results, the release of water from the frac tank to the sewer system was conducted over several days and was completed on June 28, 2010, for treatment at the local POTW.

SITE CHARACTERIZATION SAMPLING:

On June 7, 2010, horizontal and vertical soil samples were collected beneath the plating building's foundation pad. The area was divided into grids measuring approximately 25 feet by 25 feet. Samples were collected from the center of each grid at four discrete intervals (0 to 6 inches below ground surface [bgs], 6 to 12 inches bgs, 12 to 18 inches bgs, and 18 to 24 inches) and analyzed for 8 RCRA metals and hexavalent chromium. Analytical results indicated the presence of total chromium and hexavalent chromium in the surface soils at concentrations exceeding the RALs. Grid 108 contained hexavalent chromium at concentration of 162 mg/kg, and grid 116 contained total chromium of 3,610 mg/kg.

Sediment samples were collected from the offsite migration pathways and no levels above the RAL's were discovered.

WASTE WATER TREATMENT SYSTEM:

On June 22, 2010, the water from the two concrete pits were pumped into the frac tank and the contained sludge was solidified, which were removed and disposed. The two concrete pits, which were located in Grid 111, were then removed and visibly stained soil was excavated to a depth of approximately 8 feet bgs.

ASPHALT REMOVAL:

On June 15, 2010, the asphalt area that was identified to contain elevated concentrations of chromium and hexavalent chromium in the eastern portion of the site was removed and transported off site for disposal. A layer of concrete was identified beneath the asphalt throughout most of these areas.

CONTAINER RECOVERY:

During removal activities, the following containers were retrieved from areas outside the site boundary:

- An aboveground septic tank located on the property to the north of the site: The contents of this tank were mixed with water and pumped into a septic truck and hauled offsite; the tank was later crushed and disposed.
- One tank located in the drainage ditch along the northern boundary of the site. The tank, which was empty, was crushed and disposed.
- One rusted drum from the pond located east and downgradient of the site: This drum was removed from the pond and disposed.
- One drum located on the property to the south of the site: The contents of this drum, which was partially set in concrete, appeared to be kerosene and were transferred to a new drum. The original drum was then crushed and disposed.

SOIL EXCAVATION:

On June 24, 2010, ERRS excavated contaminated soil identified during previous sampling events. Soil was removed from the following locations:

- Grid 108, which is located in the southeastern portion of the former plating building. Excavation in this area was conducted to a depth of approximately 1 foot bgs.
- Grid 111, which is located between the former paint booth and mobile trailer. Excavation in this area was conducted to a depth of approximately 8 feet bgs, and included the removal of the two concrete-lined pits associated with the former wastewater treatment system.
- Grid 116, which is located in the northwestern portion of the site along Powder Springs Road. Excavation in this area was conducted to a depth of approximately 6 inches bgs.
- ER personnel excavated approximately 6 inches of soil from remaining grids within the footprint of the former plating building.

UST REMOVAL:

On June 25, ERRS discovered two underground storage tanks (UST) located near the southeastern corner of the former plating building while excavating Grid 108. On June 28, 2010, ERRS began uncovering the USTs, which were each approximately 10,000-gallons in size and contained a mixture of diesel fuel and water. The contents of the tanks were transferred to a temporary storage tank and the USTs were removed and transported for disposal. Excavation was conducted until groundwater was encountered at a depth of approximately 10 feet bgs in the vicinity of the USTs, and a total of four confirmation samples were collected and delivered for laboratory analyses. The chromium was below the RAL's. The area was subsequently backfilled with clean fill.

SITE RESTORATION:

All material identified above the Region 4 RAL's were removed and disposed off site. Upon completion of excavation activities, ERRS procured clean fill material and proceeded to backfill areas with approximately 6 inches of clay and 6 inches of fill material. In addition, the site was seeded and straw was spread to provide erosion control.

Disposition of Wastes

Waste From ER Phase:

- 1 drum and 1 tote containing inorganic corrosive liquid (basic), which were transported to the US Ecology facility (Robstown, Texas).
- 3 drums and 6 totes containing inorganic corrosive liquid (acidic), which were transported to the US Ecology facility (Robstown, Texas).
- 9 drums containing inorganic corrosive solid (basic), which were transported to the US Ecology facility (Robstown, Texas).
- 8 drums containing soil contaminated with chromium, which were transported to the US Ecology facility (Robstown, Texas).
- 2,400 gallons of chromic acid solution, which were transported to the Vickery Environmental facility (Vickery, Ohio).
- 1 drum containing cyanide, which was transported to the Pollution Control Industries facility (Milling, Tennessee).
- 1 tote containing non-hazardous neutral liquids, which was transported to the Greenleaf Treatment Services facility (Macon, Georgia).
- 2 totes containing non-hazardous oil and water, which were transported to the Greenleaf Treatment Services facility (Macon, Georgia).
- 28.22 tons of non-hazardous soil and debris, which were transported to the Pine Bluff Landfill (Ball Ground, Georgia).


Waste From Removal Phase:

- 1,329.96 tons of non-hazardous soil and debris, which were transported to the Pine Bluff Landfill (Ball Ground, Georgia).
- 21.5 tons of scrap metal were transported to ABC Recycling (Marietta, Georgia).

response.epa.gov/PowderSpringsRoadPlating

SELECTED REFERENCE #29

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USGS Annual Statistics for the Nation

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USGS 02336910 SWEETWATER CR 0.05 MI US RR BRIDGE AT AUSTELL, GA

Available data for this site

Time-series: Annual statistics

GO

Douglas County, Georgia
Hydrologic Unit Code 03130002
Latitude 33°49'04", Longitude 84°39'00" NAD83
Drainage area 157 square miles
Gage datum 871.2 feet above NAVD88

Output formats

[HTML table of all data](#)

[Tab-separated data](#)

[Reselect output format](#)

Water Year	00060, Discharge, cubic feet per second
Period-of-record for statistical calculation restricted by user	
2011	129.4
2012	84.8
2013	197.3
2014	189.3
2015	171.7

Water Year	00060, Discharge, cubic feet per second
2016	219.9
2017	136.0
2018	176.0
** No Incomplete data have been used for statistical calculation	

2011 - 2018 = 1,304.4



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Title: Surface Water data for USA: USGS Annual Statistics

URL: https://nwis.waterdata.usgs.gov/nwis/annual?



Page Contact Information: [Georgia Water Data Support Team](#)

Page Last Modified: 2019-06-11 10:31:59 EDT

0.55 0.42 nadww01

$1,304.4/8 = 163.05$ cubic feet per second

SELECTED REFERENCE #30



USGS Home
Contact USGS
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National Water Information System: Web Interface

USGS Water Resources

Data Category:


Current Conditions

Geographic Area:

United States

GO

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USGS Annual Statistics for the Nation

The statistics generated from this site are based on approved daily-mean data and may not match those published by the USGS in official publications. The user is responsible for assessment and use of statistics from this site. For more details on why the statistics may not match, [click here](#).

USGS 02337040 SWEETWATER CREEK BELOW AUSTELL, GA

Available data for this site

Time-series: Annual statistics

GO

Douglas County, Georgia
Hydrologic Unit Code 03130002
Latitude 33°43'15", Longitude 84°36'54" NAD27
Drainage area 262 square miles
Gage datum 740 feet above NGVD29

Output formats

[HTML table of all data](#)

[Tab-separated data](#)

[Reselect output format](#)

Water Year	00060, Discharge, cubic feet per second
Period-of-record for statistical calculation restricted by user	
2004	345.8
2005	508.3
2006	314.9
2007	148.0
2011	200.1
2012	126.3

Water Year	00060, Discharge, cubic feet per second
2013	331.9
2014	324.2
2015	268.9
2016	345.5
2017	243.7
2018	306.2
** No Incomplete data have been used for statistical calculation	

2004 - 2018 = 3,463.8



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Title: Surface Water data for USA: USGS Annual Statistics

URL: https://nwis.waterdata.usgs.gov/nwis/annual?



Page Contact Information: [Georgia Water Data Support Team](#)

Page Last Modified: 2019-06-11 10:43:25 EDT

0.62 0.48 nadww01

3,463.8/12 = 288.65 cubic feet per second

SELECTED REFERENCE #32

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PERMIT NO.: CS0670002

COUNTY: Cobb



ISSUE DATE

OF PERMIT: April 23, 2014

MODIFICATION
DATE:

PERMIT
TO OPERATE A
PUBLIC WATER SYSTEM

In compliance with the provisions of the **GEORGIA SAFE DRINKING WATER ACT of 1977**, O.C.G.A. 12-5-170 et. seq., and the **RULES, CHAPTER 391-3-5**, adopted pursuant to the ACT

Cobb County - Marietta Water Authority

is issued a **PERMIT TO OPERATE A PUBLIC COMMUNITY WATER SYSTEM** named

Cobb County - Marietta Water Authority

and located at

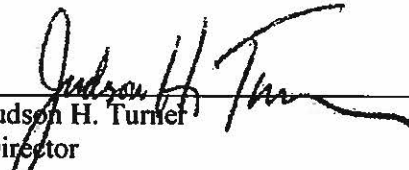
Marietta, Georgia

THIS PERMIT to operate the above public water system shall become effective on the date shown above and shall expire, absent any prior revocation or modification, at midnight

April 22, 2024

THIS PERMIT is issued subject to the terms, conditions and schedules of compliance as follows:

1. **THE PERMITTEE** shall at all times operate the public water system in full compliance with the **GEORGIA SAFE DRINKING WATER ACT of 1977**, and the **RULES, CHAPTER 391-3-5**, adopted under the ACT. **THE DIRECTOR** may modify, suspend or revoke this permit as provided therein.
2. **THIS PERMIT** is transferable only with a change of ownership. **THE PERMITTEE** shall notify the succeeding owner by letter of the existing permit and surrender the original permit to the Director. The succeeding owner shall apply to the Director for a permit transfer within 30 days of receiving title to the property.
3. **THIS PERMIT** is further subject to the terms, conditions and schedules of compliance specified on the attached pages.


Judson H. Turner
Director

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: Cobb County - Marietta Water Authority

ISSUE DATE: April 23, 2014

SYSTEM: Cobb County - Marietta Water Authority

PERMIT NO.: CS0670002

PERMIT CONDITIONS

4. This permit is for the operation of a public water system using surface water as the principal source of supply. The approved production rates for the surface water treatment plants and other approved sources of water are:

Source #101 - Lake Allatoona
Wyckoff Water Treatment Plant
Filters -1-20 --- 62,760 GPM (90.4 MGD) @ 6.00 GPM/SQFT
Total maximum daily production is limited to 72 MGD.

Source #102 - Chattahoochee River
Quarles Water Treatment Plant
Filters 1-11 --- 42,000 GPM (60.5 MGD) @ 5.50 GPM/SQFT
Filters 12-19 --- 29,167 GPM (42.0 MGD) @ 5.25 GPM/SQFT
Total maximum daily production is limited to 86 MGD.

Operation of the water plants in excess of the approved production rates in a twenty-four (24) hour period (starting at 0000 to midnight 2400 hours) is a violation of this permit. Violations must be reported to the Drinking Water Program by telephone within forty-eight (48) hours and confirmed in writing within ten (10) days. The total amount of water produced must not exceed the limits imposed by your surface water withdrawal permits, #008-1491-05 (Lake Allatoona) and #033-1290-01 (Chattahoochee River).

5. The permittee must provide continuous disinfection by chlorinating all water distributed by the system to maintain a detectable residual of free chlorine in the recommended amount of 0.2 milligrams per liter in all parts of the distribution system, or as specified in Section 391-3-5-.14, as amended, of the Rules for Safe Drinking Water.

6. The permittee shall analyze or have analyzed all microbiological and chemical samples required by the Rules for Safe Drinking Water, Chapter 391-3-5. Monitoring for each contaminant must be performed as scheduled by the Georgia Environmental Protection Division's (EPD) Drinking Water Compliance Program (DWCP). The supplier must provide all test results to the DWCP within the time frames established in the schedules. The permittee may use the laboratory services of the EPD's certified laboratory or any other laboratory certified by the DWCP to perform the specific analysis. If a laboratory other than the EPD's certified laboratory is used, the laboratory results must be submitted to the following address as specified in Section 391-3-5-.30:

Environmental Protection Division
Drinking Water Compliance Program
Compliance and Enforcement Unit, Suite 1362
2 Martin Luther King, Jr. Drive, SE
Atlanta, Georgia 30334

The format used to report results must be approved by the DWCP and must identify the system by the water system identification number, WSID# 0670002, and the laboratory performing the analysis. The laboratory's certification number must be included on the report. Results requiring immediate notification should be reported to the DWCP by telephone at (404) 656-4807 or fax at (404) 651-9590.

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: Cobb County - Marietta Water Authority

ISSUE DATE: April 23, 2014

SYSTEM: Cobb County - Marietta Water Authority

PERMIT NO.: CS0670002

PERMIT CONDITIONS

7. Reports must be maintained by the permittee on the premises of the water system and be available for inspection. **A true and correct copy of the operation records and other reports must be sent to the following address, by the tenth day of the month following the month being reported, unless otherwise stated in Section 391-3-5-.30 or elsewhere in the Rules:**

Environmental Protection Division
Drinking Water Permitting & Engineering Program
Suite 1362, Floyd Towers East
2 Martin Luther King, Jr. Drive, SE
Atlanta, Georgia 30334
Phone: (404) 656-2750
Fax: (404) 651-9590

8. **The permittee shall insure that this public water system is operated in compliance with the Georgia Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended, and the Rules adopted thereunder. The certification classification must be consistent with the public water system classification specified in Section 391-3-5-.39 of the Rules for Safe Drinking Water.**

9. Drinking water distributed by the permittee should not contain any impurity which will cause offense to the sense of sight, taste or smell and should not be excessively corrosive as to cause degradation of the water quality or deterioration of the distribution system, as specified in Section 391-3-5-.19 and .26 of the Rules for Safe Drinking Water.

10. The permittee is required to have a water conservation and cross-connection control plan on file with the Division.

11. **The permittee is required to provide continuous fluoridation to all water distributed by the system, as specified in Section 391-3-5-.16 of the Rules for Safe Drinking Water.**

12. The permittee shall meter all existing water sources connected to the public water supply system and shall report the system's water usage to the EPD's Drinking Water Permitting & Engineering Program.

13. The permittee must meter any new water sources and new services connected to the public water supply system.

14. This permit replaces all Permits to Operate a Public Water System previously issued for the operation of this public water system.

SELECTED REFERENCE #33

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PERMIT NO.: CP0670003

COUNTY: Cobb



ISSUE DATE
OF PERMIT: April 23, 2014

MODIFICATION
DATE:

PERMIT
TO OPERATE A
PUBLIC WATER SYSTEM

In compliance with the provisions of the **GEORGIA SAFE DRINKING WATER ACT of 1977**, **O.C.G.A. 12-5-170 et. seq.**, and the **RULES, CHAPTER 391-3-5**, adopted pursuant to the ACT

Cobb County Board of Commissioners

is issued a **PERMIT TO OPERATE A PUBLIC COMMUNITY WATER SYSTEM** named

Cobb County

and located at

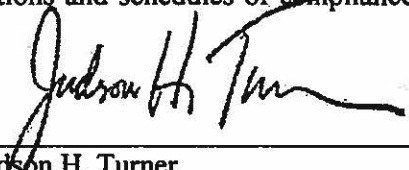
Marietta, Georgia

THIS PERMIT to operate the above public water system shall become effective on the date shown above and shall expire, absent any prior revocation or modification, at midnight

April 22, 2024

THIS PERMIT is issued subject to the terms, conditions and schedules of compliance as follows:

1. **THE PERMITTEE** shall at all times operate the public water system in full compliance with the **GEORGIA SAFE DRINKING WATER ACT of 1977**, and the **RULES, CHAPTER 391-3-5**, adopted under the ACT. **THE DIRECTOR** may modify, suspend or revoke this permit as provided therein.
2. **THIS PERMIT** is transferable only with a change of ownership. **THE PERMITTEE** shall notify the succeeding owner by letter of the existing permit and surrender the original permit to the Director. The succeeding owner shall apply to the Director for a permit transfer within 30 days of receiving title to the property.
3. **THIS PERMIT** is further subject to the terms, conditions and schedules of compliance specified on the attached pages.



Judson H. Turner
Director

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: Cobb County Board of Commissioners

ISSUE DATE: April 23, 2014

SYSTEM: Cobb County

PERMIT NO.: CP0670003

PERMIT CONDITIONS

4. This permit is for the operation of a public drinking water distribution system using purchased surface water as the principal source of supply. The approved source of water is the:

Cobb-Marietta Water Authority WSID# 0670002

5. Disinfection treatment is not a requirement of this permit. However, the permittee is responsible for maintaining a detectable residual of free chlorine in the recommended amount of at least 0.2 parts per million in all parts of the distribution system, as specified in Section 391-2-5-.14, as amended, of the Rules for Safe Drinking Water.

6. The permittee shall analyze or have analyzed all microbiological and chemical samples required by the Rules for Safe Drinking Water, Chapter 391-3-5. Monitoring for each contaminant must be performed as scheduled by the Georgia Environmental Protection Division's (EPD) Drinking Water Compliance Program (DWCP). The supplier must provide all test results to the DWCP within the time frames established in the schedules. The permittee may use the laboratory services of the EPD's certified laboratory or any other laboratory certified by the DWCP to perform the specific analysis. If a laboratory other than the EPD's certified laboratory is used, the laboratory results must be submitted to the following address as specified in Section 391-3-5-.30:

Environmental Protection Division
Drinking Water Compliance Program
Compliance and Enforcement Unit, Suite 1362
2 Martin Luther King, Jr. Drive, SE
Atlanta, Georgia 30334

The format used to report results must be approved by the DWCP and must identify the system by the water system identification number, WSID# 0670003, and the laboratory performing the analysis. The laboratory's certification number must be included on the report. Results requiring immediate notification should be reported to the DWCP by telephone at (404) 656-4807 or fax at (404) 651-9590.

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: Cobb County Board of Commissioners

ISSUE DATE: April 23, 2014

SYSTEM: Cobb County

PERMIT NO.: CP0670003

PERMIT CONDITIONS

7. Reports must be maintained by the permittee on the premises of the water system and be available for inspection. **A true and correct copy of the operation records and other reports must be sent to the following address, by the tenth day of the month following the month being reported, unless otherwise stated in Section 391-3-5-.30 or elsewhere in the Rules:**

Environmental Protection Division
Mountain District Cartersville Office
P.O. Box 3250
16 Center Road
Cartersville, GA 30120-3250
Phone: (770) 387-4900
Fax: (770) 387-4906

8. **The permittee shall insure that this public water system is operated in compliance with the Georgia Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended, and the Rules adopted thereunder. The certification classification must be consistent with the public water system classification specified in Section 391-3-5-.39 of the Rules for Safe Drinking Water.**

9. Drinking water distributed by the permittee should not contain any impurity which will cause offense to the sense of sight, taste or smell and should not be excessively corrosive as to cause degradation of the water quality or deterioration of the distribution system, as specified in Section 391-3-5-.19 and .26 of the Rules for Safe Drinking Water.

10. The permittee is required to have a water conservation and cross-connection control plan on file with the Division.

11. Continuous fluoridation is provided by the purchased water supplier to all water distributed by this system, as specified in Section 391-3-5-.16 of the Rules for Safe Drinking Water.

12. The permittee shall meter all existing water sources connected to the public water supply system and shall report the system's water usage to the EPD's Mountain District Cartersville Office.

13. The permittee must meter any new water sources and new services connected to the public water supply system.

14. This permit replaces all Permits to Operate a Public Water System previously issued for the operation of this public water system.

SELECTED REFERENCE #34

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PERMIT NO.: CP0670001

COUNTY: Cobb



ISSUE DATE
OF PERMIT: April 8, 2015

MODIFICATION
DATE:

PERMIT
TO OPERATE A
PUBLIC WATER SYSTEM

*Drinking Water
Permit File*

In compliance with the provisions of the **GEORGIA SAFE DRINKING WATER ACT** of 1977, O.C.G.A. 12-5-170 et. seq., and the **RULES, CHAPTER 391-3-5**, adopted pursuant to the ACT

City of Austell

is issued a **PERMIT TO OPERATE A PUBLIC COMMUNITY WATER SYSTEM** named

Austell Water System

and located at

Austell, Georgia

THIS PERMIT to operate the above public water system shall become effective on the date shown above and shall expire, absent any prior revocation or modification, at midnight

April 7, 2025

THIS PERMIT is issued subject to the terms, conditions and schedules of compliance as follows:

1. **THE PERMITTEE** shall at all times operate the public water system in full compliance with the **GEORGIA SAFE DRINKING WATER ACT** of 1977, and the **RULES, CHAPTER 391-3-5**, adopted under the ACT. **THE DIRECTOR** may modify, suspend or revoke this permit as provided therein.
2. **THIS PERMIT** is transferable only with a change of ownership. **THE PERMITTEE** shall notify the succeeding owner by letter of the existing permit and surrender the original permit to the Director. The succeeding owner shall apply to the Director for a permit transfer within 30 days of receiving title to the property.
3. **THIS PERMIT** is further subject to the terms, conditions and schedules of compliance specified on the attached pages.

Judson H. Turner
Director

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: City of Austell

ISSUE DATE: April 8, 2015

SYSTEM: Austell Water System

PERMIT NO.: CP0670001

PERMIT CONDITIONS

4. This permit is for the operation of a public drinking water distribution system using purchased surface water as the source of supply. The approved source of water is:

Cobb-Marietta Water Authority WSID#0670002

5. Disinfection treatment is not a requirement of this permit. However, the permittee is responsible for maintaining a detectable residual of free chlorine in the recommended amount of at least 0.2 parts per million in all parts of the distribution system, as specified in Section 391-2-5-.14, as amended, of the Rules for Safe Drinking Water.

6. The permittee shall analyze or have analyzed all microbiological and chemical samples required by the Rules for Safe Drinking Water, Chapter 391-3-5. Monitoring for each contaminant must be performed as scheduled by the Georgia Environmental Protection Division's (EPD) Watershed Compliance Program (WCP). The supplier must provide all test results to the WCP within the time frames established in the schedules. The permittee may use the laboratory services of the EPD's certified laboratory or any other laboratory certified by the WCP to perform the specific analysis. If a laboratory other than the EPD's certified laboratory is used, the laboratory results must be submitted to the following address as specified in Section 391-3-5-.30:

Environmental Protection Division
Watershed Compliance Program
Drinking Water Compliance and Enforcement Unit, Suite 1362
2 Martin Luther King, Jr. Drive, SE
Atlanta, Georgia 30334

The format used to report results must be approved by the WCP and must identify the system by the water system identification number, WSID# 0670001, and the laboratory performing the analysis. The laboratory's certification number must be included on the report. Results requiring immediate notification should be reported to the WCP by telephone at (404) 463-1511 or fax at (404) 651-9590.

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: City of Austell

ISSUE DATE: April 8, 2015

SYSTEM: Austell Water System

PERMIT NO.: CP0670001

PERMIT CONDITIONS

7. Reports must be maintained by the permittee on the premises of the water system and be available for inspection. **A true and correct copy of the operation records and other reports must be sent to the following address, by the tenth day of the month following the month being reported, unless otherwise stated in Section 391-3-5-.30 or elsewhere in the Rules:**

Environmental Protection Division
Mountain District Cartersville Office
P.O. Box 3250
16 Center Road
Cartersville, GA 30120-3250
Phone: (770) 387-4900
Fax: (770) 387-4906

8. **The permittee shall ensure that this public water system is operated in compliance with the Georgia Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended, and the Rules adopted thereunder. The certification classification must be consistent with the public water system classification specified in Section 391-3-5-.39 of the Rules for Safe Drinking Water.**

9. Drinking water distributed by the permittee should not contain any impurity which will cause offense to the sense of sight, taste or smell and should not be excessively corrosive as to cause degradation of the water quality or deterioration of the distribution system, as specified in Section 391-3-5-.19 and .26 of the Rules for Safe Drinking Water.

10. The permittee is required to have a water conservation plan on file with the Division.

11. Continuous fluoridation is provided by the purchased water supplier to all water distributed by this system, as specified in Section 391-3-5-.16 of the Rules for Safe Drinking Water.

12. The permittee shall meter all existing water sources connected to the public water supply system and shall report the system's water usage to the EPD's Mountain District Cartersville Office.

13. The permittee must meter any new water sources and new services connected to the public water supply system.

14. This permit replaces all Permits to Operate a Public Water System previously issued for the operation of this public water system.

SELECTED REFERENCE #35

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PERMIT NO.: CP0670006

COUNTY: Cobb



ISSUE DATE
OF PERMIT: July 10, 2013

MODIFICATION
DATE:

PERMIT
TO OPERATE A
PUBLIC WATER SYSTEM

In compliance with the provisions of the **GEORGIA SAFE DRINKING WATER ACT** of 1977, O.C.G.A. 12-5-170 et. seq., and the **RULES, CHAPTER 391-3-5**, adopted pursuant to the ACT

City of Powder Springs

is issued a **PERMIT TO OPERATE A PUBLIC COMMUNITY WATER SYSTEM** named

Powder Springs

and located at

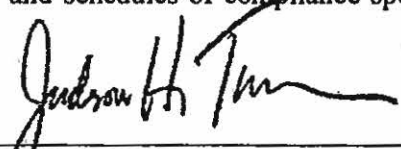
Powder Springs, Georgia

THIS PERMIT to operate the above public water system shall become effective on the date shown above and shall expire, absent any prior revocation or modification, at midnight

July 9, 2023

THIS PERMIT is issued subject to the terms, conditions and schedules of compliance as follows:

1. **THE PERMITTEE** shall at all times operate the public water system in full compliance with the **GEORGIA SAFE DRINKING WATER ACT** of 1977, and the **RULES, CHAPTER 391-3-5**, adopted under the ACT. **THE DIRECTOR** may modify, suspend or revoke this permit as provided therein.
2. **THIS PERMIT** is transferable only with a change of ownership. **THE PERMITTEE** shall notify the succeeding owner by letter of the existing permit and surrender the original permit to the Director. The succeeding owner shall apply to the Director for a permit transfer within 30 days of receiving title to the property.
3. **THIS PERMIT** is further subject to the terms, conditions and schedules of compliance specified on the attached pages.



Judson H. Turner
Director

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: City of Powder Springs

ISSUE DATE: July 10, 2013

SYSTEM: Powder Springs

PERMIT NO.: CP0670006

PERMIT CONDITIONS

4. This permit is for the operation of a public drinking water distribution system using purchased surface water as the principal source of supply. The approved sources of water are:

Cobb-Marietta Water Authority WSID# 0670002
Cobb County Water System WSID# 0670003

5. Disinfection treatment is not a requirement of this permit. However, the permittee is responsible for maintaining a detectable residual of free chlorine in the recommended amount of at least 0.2 parts per million in all parts of the distribution system, as specified in Section 391-2-5-.14, as amended, of the Rules for Safe Drinking Water.

6. The permittee shall analyze or have analyzed all microbiological and chemical samples required by the Rules for Safe Drinking Water, Chapter 391-3-5. Monitoring for each contaminant must be performed as scheduled by the Georgia Environmental Protection Division's (EPD) Drinking Water Compliance Program (DWCP). The supplier must provide all test results to the DWCP within the time frames established in the schedules. The permittee may use the laboratory services of the EPD's certified laboratory or any other laboratory certified by the DWCP to perform the specific analysis. If a laboratory other than the EPD's certified laboratory is used, the laboratory results must be submitted to the following address as specified in Section 391-3-5-.30:

Environmental Protection Division
Drinking Water Compliance Program
Compliance and Enforcement Unit, Suite 1362
2 Martin Luther King, Jr. Drive, SE
Atlanta, Georgia 30334

The format used to report results must be approved by the DWCP and must identify the system by the water system identification number, WSID# 0670006, and the laboratory performing the analysis. The laboratory's certification number must be included on the report. Results requiring immediate notification should be reported to the DWCP by telephone at (404) 656-4807 or fax at (404) 651-9590.

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: City of Powder Springs

ISSUE DATE: July 10, 2013

SYSTEM: Powder Springs

PERMIT NO.: CP0670006

PERMIT CONDITIONS

7. Reports must be maintained by the permittee on the premises of the water system and be available for inspection. A true and correct copy of the operation records and other reports must be sent to the following address, by the tenth day of the month following the month being reported, unless otherwise stated in Section 391-3-5-.30 or elsewhere in the Rules:

Environmental Protection Division
Mountain District Cartersville Office
P.O. Box 3250
16 Center Road
Cartersville, GA 30120-3250
Phone: (770) 387-4900
Fax: (770) 387-4906

8. The permittee shall insure that this public water system is operated in compliance with the Georgia Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended, and the Rules adopted thereunder. The certification classification must be consistent with the public water system classification specified in Section 391-3-5-.39 of the Rules for Safe Drinking Water.

9. Drinking water distributed by the permittee should not contain any impurity which will cause offense to the sense of sight, taste or smell and should not be excessively corrosive as to cause degradation of the water quality or deterioration of the distribution system, as specified in Section 391-3-5-.19 and .26 of the Rules for Safe Drinking Water.

10. The permittee is required to have a water conservation and cross-connection control plan on file with the Division.

11. Continuous fluoridation is provided by the purchased water supplier to all water distributed by this system, as specified in Section 391-3-5-.16 of the Rules for Safe Drinking Water.

12. The permittee shall meter all existing water sources connected to the public water supply system and shall report the system's water usage to the EPD's Mountain District Cartersville Office.

13. The permittee must meter any new water sources and new services connected to the public water supply system.

14. This permit replaces all Permits to Operate a Public Water System previously issued for the operation of this public water system.

SELECTED REFERENCE #37

PERMIT NO. CS1210003

ISSUE DATE: DEC 13 2018



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

PERMIT TO OPERATE A PUBLIC WATER SYSTEM

In compliance with the provisions of the **GEORGIA SAFE DRINKING WATER ACT** of 1977, O.C.G.A. 12-5-170 et. seq., and the **RULES, CHAPTER 391-3-5**, adopted pursuant to the ACT

City of East Point

is issued a **PERMIT TO OPERATE A PUBLIC COMMUNITY WATER SYSTEM** named

East Point Water System

and located at

East Point, Fulton County, Georgia

THIS PERMIT to operate the above public water system shall become effective on the date shown above and shall have a fixed term of ten (10) years, absent any prior revocation or modification.

THIS PERMIT is issued subject to the terms, conditions and schedules of compliance as follows:

1. **THE PERMITTEE** shall at all times operate the public water system in full compliance with the **GEORGIA SAFE DRINKING WATER ACT** of 1977, and the **RULES, CHAPTER 391-3-5**, adopted under the ACT. **THE DIRECTOR** may modify, suspend or revoke this permit as provided therein.
2. **THIS PERMIT** is transferable only with a change of ownership. **THE PERMITTEE** shall notify the succeeding owner by letter of the existing permit and surrender the original permit to the Director. The succeeding owner shall apply to the Director for a permit transfer within 30 days of receiving title to the property.
3. **THIS PERMIT** is further subject to the terms, conditions and schedules of compliance specified on the attached pages.



Richard E. Dunn, Director
Environmental Protection Division

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: City of East Point

PERMIT NO.: CS1210003

SYSTEM: East Point Water System

PERMIT CONDITIONS

4. **This permit is for the operation of a public water system using surface water as the principal source of supply, supplemented by wells.** The approved production rate(s) for the surface water treatment plant(s) and other approved sources of water are:

Sweetwater Creek
9,660 GPM (13.9MGD) W/12 Filters @ 2.3 GPM/SQFT

Operation of the water plant(s) in excess of the approved production rate(s) in a twenty-four (24) hour period (starting at 0000 to midnight 2400 hours) is a violation of this permit. Violations must be reported to the Drinking Water Program by telephone within forty-eight (48) hours and confirmed in writing within ten (10) days. **The total amount of water produced must not exceed the limits imposed by your surface water withdrawal permit, #048-1214-03.**

5. The permittee must provide continuous disinfection by chlorinating all water distributed by the system to maintain a detectable residual of free chlorine in the recommended amount of 0.2 milligrams per liter in all parts of the distribution system, or as specified in Section 391-3-5-.14, as amended, of the Rules for Safe Drinking Water.

6. **The permittee shall analyze or have analyzed all microbiological and chemical samples required by the Rules for Safe Drinking Water, Chapter 391-3-5. Monitoring for each contaminant must be performed as scheduled by the Georgia Environmental Protection Division's (EPD) Watershed Compliance Program (WCP). The supplier must provide all test results to the WCP within the time frames established in the schedules. The permittee may use the laboratory services of the EPD's certified laboratory or any other laboratory certified by the WCP to perform the specific analysis. If a laboratory other than the EPD's certified laboratory is used, the laboratory results must be submitted to the following address as specified in Section 391-3-5-.30:**

Environmental Protection Division
Watershed Protection Branch Compliance Program
Drinking Water Compliance Unit
2 Martin Luther King, Jr. Drive, SE, Suite 1152 East
Atlanta, Georgia 30334

The format used to report results must be approved by the WCP and must identify the system by the water system identification number, WSID# 1210003, and the laboratory performing the analysis. The laboratory's certification number must be included on the report. Results requiring immediate notification should be reported to the WCP by telephone at (404) 463-1511 or fax at (404) 651-9590.

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

OWNER: City of East Point

PERMIT NO.: CS1210003

SYSTEM: East Point Water System

PERMIT CONDITIONS

7. Reports must be maintained by the permittee on the premises of the water system and be available for inspection. **A true and correct copy of the operation records and other reports must be sent to the following address, by the tenth day of the month following the month being reported, unless otherwise stated in Section 391-3-5-.30 or elsewhere in the Rules:**

Environmental Protection Division
Drinking Water Permitting & Engineering Program
Suite 1362, Floyd Towers East
2 Martin Luther King, Jr. Drive, SE
Atlanta, Georgia 30334
Phone: (404) 656-2750
Fax: (404) 651-9590

8. **The permittee shall ensure that this public water system is operated in compliance with the Georgia Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended, and the Rules adopted thereunder. The certification classification must be consistent with the public water system classification specified in Section 391-3-5-.39 of the Rules for Safe Drinking Water.**

9. The permittee shall comply with O.C.G.A Sections 12-5-7 and 12-5-8 regarding limitations on outdoor irrigation, local variances from state restrictions on outdoor watering, and any rules and regulations related to drought management promulgated thereafter. This condition applies to any water system that holds a water withdrawal permit, or uses water provided by a system with a withdrawal permit.

10. Drinking water distributed by the permittee should not contain any impurity which will cause offense to the sense of sight, taste or smell and should not be excessively corrosive as to cause degradation of the water quality or deterioration of the distribution system, as specified in Section 391-3-5-.19 and .26 of the Rules for Safe Drinking Water.

11. The permittee is required to have a water conservation and cross-connection control plan on file with the Division.

12. **The permittee is required to provide continuous fluoridation to all water distributed by the system, as specified in Section 391-3-5-.16 of the Rules for Safe Drinking Water.**

13. The permittee shall comply with Section 391-3-.5-.06 of the Rules for Safe Drinking Water and shall meter all water supply sources connected to the public water system and shall report the system's water usage to the EPD's Drinking Water Permitting & Engineering Program.

14. The permittee shall provide sanitary protection for each source of water supply, as specified in Section 391-3-5-.07 of the Rule for safe Drinking Water.

15. This permit replaces all Permits to Operate a Public Water System previously issued for the operation of this public water system.

SELECTED REFERENCE #38

ENVIRONMENTAL PROTECTION DIVISION
DEPARTMENT OF NATURAL RESOURCES
STATE OF GEORGIA
PERMIT TO WITHDRAW, DIVERT OR IMPOUND SURFACE WATER

PERMITTEE'S NAME City of East Point

PERMIT NUMBER 048-1214-03

PERMITTEE'S ADDRESS City Hall, 2777 East Point Street, East Point, Georgia 30344 Douglas County

In accordance with the provisions of the Georgia Water Quality Control Act, (O.C.G.A. § 12-5-20 et seq.) as amended, and the Rules and Regulations for Water Quality Control, Chapter 391-3-6, promulgated pursuant thereto, this permit is issued to withdraw surface water from the (source) Sweetwater Creek in the Chattahoochee River basin for the purpose of municipal water supply.

The permit holder must comply with the following limitations:

- (1) Maximum 24 hour: Withdrawal 13.20 MGD; Impoundment ____ MGD; Diversion ____ MGD
- (2) Not to exceed a monthly average of 11.50 MGD

This permit is conditioned upon the permit holder complying with the following:

STANDARD CONDITIONS

- (1) The provisions of the Water Quality Control Act, as amended, or any of the Rules and Regulations promulgated thereto;
- (2) This permit must not be transferred except with the approval of the Division;
- (3) The use of surface water is limited to the quantities and purposes as specified herein;
- (4) The permit holder must submit annually to the Division, within 30 days of completion of the calendar year, a report listing for each month of the previous year:
 - a. The gallons per day withdrawn, based on an average of the daily withdrawals for the month;
 - b. The maximum 24 hour withdrawal;
- (5) And the attached special conditions, which are hereby, made a part of this permit.

In accordance with the application dated 10/13/11 and in conformity with the statements and supporting data entered therein or attached thereto, all of which are filed with the Environmental Protection Division of the Department of Natural Resources and are hereby made part of this Permit.

This Permit is effective from the date written below and is subject to revocation pursuant to the Georgia Water Quality Control Act, as amended, O.C.G.A. § 12-5-31 (k).

Absent prior revocation in accordance with the above language, this Permit will expire on the 21st day of December 2021.

DIRECTOR'S SIGNATURE

DATE:
November 29, 2012

Director
Environmental Protection Division
Department of Natural Resources

SPECIAL CONDITIONS

1. All water withdrawn via this permit by the permit holder must be withdrawn at the City of East Point Intake Structure (Intake) located approximately 872 yards on the north side of Riverside Parkway. The permit holder must monitor, record and keep on file daily inflow records, when the withdrawal pumps are in operation.
2. The City of East Point may supplement the withdrawals from Sweetwater Creek with water from the George Sparks Reservoir. Amounts are not to exceed the quantities shown on page one of this permit.
3. In addition to Standard Condition Number (4), the permit holder must submit to the Environmental Protection Division (EPD), within 10 days of completion of the calendar month, a monthly Surface Water Withdrawal Report for the previous month, showing daily raw water withdrawals associated with this Permit.
4. The permit holder will abide by the applicable water conservation requirements.
5. The permit holder will abide by the applicable drought response requirements.
6. This surface water withdrawal permit and any future modification or re-issuances of such, is conditional upon implementation of the Water Conservation Plan. The permit holder must demonstrate an effort to increase water use efficiency.
7. The permit holder shall not transfer any water withdrawn via this permit to any entity operating outside the Chattahoochee River Basin without EPD approval of such a transfer.

PERMIT MODIFICATION

The permit holder may seek modification of any of the terms of an unexpired permit upon written request to the Director.

SCORESHEETS

APPENDIX A

OMB Approval Number: 2050-0095
Approved for Use Through: 1/92

PA Scoresheets

Site Name: Powder Springs Road Plating

CERCLIS ID No.: GAD984318634

Street Address: 5355/5491 Austell Powder Springs Rd.

City/State/Zip: Austell, GA 30106

Investigator: Peter E. Johnson, P.G.

Agency/Organization: GEPD

Street Address: 2 MLK, Jr. Drive, Suite 1054

City/State/Zip: Atlanta, GA 30334

Date June 2019

GENERAL INFORMATION**Site Description and Operational History:**

Please see Section 2.0 of the PA narrative report.

Probable Substances of Concern:
(Previous investigations, analytical data)

Please see Section 2.4 of the PA narrative report.

GENERAL INFORMATION (continued)**Site Sketch:**

(Show all pertinent features, indicate sources and closest targets, indicate north)

Please see the following figures:

Figure 3: Nearby Surrounding Area, Approximate Site Boundaries and Site Reference Point

Figure 4: 2010 Aerial Photograph Depicting Approximate Site Boundaries, Site Reference Point, and Site Features Prior to USEPA Removal Activities

SOURCE EVALUATION

Source No.: 1	Source Name: Contaminated Soil	Source Waste Quantity (WQ) Calculations:
Source Description: Potentially Contaminated Soil (chromium and lead), (not including impenetrable surfaces): ~ 400,443.92 ft ²		As per PA Table 1A, a Single Source Site with an Area of Contaminated Soil less than 3.4 million ft ² produces a Waste Characteristic (WC) Score of 18. Therefore, since the Area of Contaminated Soil at the site is approximately 400,443.92 ft ² , the <u>WC = 18</u> .

Source No.: 2	Source Name:	Source Waste Quantity (WQ) Calculations:
Source Description:		

Source No.:	Source Name:	Source Waste Quantity (WQ) Calculations:
Source Description:		
		Site WC: 18

PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		WC = 18	WC = 32	WC = 100	Formula for Assigning Source WQ Values
CONTINENT	N/A	≤ 100 lb	> 100 to 10,000 lb	> 10,000 lb	lb + 1
WATERSHED	N/A	≤ 500,000 lb	> 500,000 to 50 million lb	> 50 million lb	lb + 5,000
VOLUME	Landfill	≤ 6.75 million ft ³ ≤ 250,000 yd ³	> 6.75 million to 675 million ft ³ > 250,000 to 25 million yd ³	> 675 million ft ³ > 25 million yd ³	ft ³ + 67,500 yd ³ + 2,500
	Surface impoundment	≤ 6,750 ft ³ ≤ 250 yd ³	> 6,750 to 675,000 ft ³ > 250 to 25,000 yd ³	> 675,000 ft ³ > 25,000 yd ³	ft ³ + 67.5 yd ³ + 2.5
	Drums	≤ 1,000 drums	> 1,000 to 100,000 drums	> 100,000 drums	drums + 10
	Tanks and non-drum containers	≤ 50,000 gallons	> 50,000 to 5 million gallons	> 5 million gallons	gallons + 500
	Contaminated soil	≤ 6.75 million ft ³ ≤ 250,000 yd ³	> 6.75 million to 675 million ft ³ > 250,000 to 25 million yd ³	> 675 million ft ³ > 25 million yd ³	ft ³ + 67,500 yd ³ + 2,500
	Pile	≤ 6,750 ft ³ ≤ 250 yd ³	> 6,750 to 675,000 ft ³ > 250 to 25,000 yd ³	> 675,000 ft ³ > 25,000 yd ³	ft ³ + 67.5 yd ³ + 2.5
	Other	≤ 6,750 ft ³ ≤ 250 yd ³	> 6,750 to 675,000 ft ³ > 250 to 25,000 yd ³	> 675,000 ft ³ > 25,000 yd ³	ft ³ + 67.5 yd ³ + 2.5
AREA	Landfill	≤ 340,000 ft ² ≤ 7.8 acres	> 340,000 to 34 million ft ² > 7.8 to 780 acres	> 34 million ft ² > 780 acres	ft ² + 3,400 acres + 0.078
	Surface impoundment	≤ 1,300 ft ² ≤ 0.029 acres	> 1,300 to 130,000 ft ² > 0.029 to 2.9 acres	> 130,000 ft ² > 2.9 acres	ft ² + 13 acres + 0.00029
	Contaminated soil	≤ 3.4 million ft ² ≤ 78 acres	> 3.4 million to 340 million ft ² > 78 to 7,800 acres	> 340 million ft ² > 7,800 acres	ft ² + 34,000 acres + 0.78
	Pile*	≤ 1,300 ft ² ≤ 0.029 acres	> 1,300 to 130,000 ft ² > 0.029 to 2.9 acres	> 130,000 ft ² > 2.9 acres	ft ² + 13 acres + 0.00029
	Land treatment	≤ 27,000 ft ² ≤ 0.62 acres	> 27,000 to 2.7 million ft ² > 0.62 to 62 acres	> 2.7 million ft ² > 62 acres	ft ² + 270 acres + 0.0062

1 ton = 2,000 lb = 1 yd³ = 4 drums = 200 gallons

* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	WC Score
> 0 to 100	18
> 100 to 10,000	32
> 10,000	100

**GROUND WATER PATHWAY
GROUND WATER USE DESCRIPTION**

Describe Ground Water Use Within 4-miles of the Site:

(Describe stratigraphy, information on aquifers, municipal and/or private wells)

Please see Sections 3.1 and 3.2 of the PA narrative report.

Calculations for Drinking Water Populations Served by Ground Water:

Please see the following tables:

Table 2: Approximate Population Served by Domestic Wells Located Within Four Miles of Site Reference Point;

Table 3: Apportioned Drinking Water Population for Each Potable Water Source of the City of East Point Water System; and

Table 4: Current Population Served by Domestic & Public Wells Located Within Four Miles of Site Reference Point.

GROUND WATER PATHWAY CRITERIA LIST	
SUSPECTED RELEASE	PRIMARY TARGETS
<p>Y N U e o n s k</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Are sources poorly contained?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is waste quantity particularly large?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is precipitation heavy?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is the infiltration rate high?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the site located in an area of karst terrain?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is the subsurface highly permeable or conductive?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is drinking water drawn from a shallow aquifer?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Are suspected contaminants highly mobile in ground water?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest ground water contamination?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SUSPECTED RELEASE?</p>	<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any drinking water well nearby?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has any nearby drinking water well been closed?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Has any nearby drinking water user reported foul-tasting or foul-smelling water?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any nearby well have a large drawdown or high production rate?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Does analytical or circumstantial evidence suggest contamination at a drinking water well?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any drinking water well warrant sampling?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> PRIMARY TARGET(S) IDENTIFIED?</p>
<p>Summarize the rationale for Suspected Release (attach an additional page if necessary):</p> <p>See Section 3.3 of the PA report narrative.</p>	<p>Summarize the rationale for Primary Targets (attach an additional page if necessary):</p> <p>See Section 3.3 of the PA report narrative.</p>

GROUND WATER PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes <u>X</u> No <u> </u>
Is the site located in karst terrain?	Yes <u> </u> No <u>X</u>
Depth to aquifer:	<u>Unknown</u> ft
Distance to the nearest drinking water well:	<u>> 10.560</u> ft

LIKELIHOOD OF RELEASE

	A Suspected Release (540)	B No Suspected Release (500 or 340)	References
1. SUSPECTED RELEASE: If you suspect a release to ground water (see page 7), assign a score of 550. Use only column A for this pathway.	550		1-3, 6, 24 & 46
2. NO SUSPECTED RELEASE: If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.		N/A	N/A
LR =	550	N/A	

TARGETS

3. PRIMARY TARGET POPULATION: Determine the number of people served by drinking water wells that you suspect have been exposed to a hazardous substance from the site (see Ground Water Pathway Criteria List, page 7). _____ people x 10 =	N/A		N/A
4. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water wells that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes <u> </u> No <u>X</u> If yes, attach a page to show apportionment calculations.	7	N/A	1-3, 5, 6, & 46
5. NEAREST WELL: If you have identified a primary target population for ground water, assign a score of 50; otherwise, assign the Nearest Well score from PA Table 2. If no drinking water wells exist within 4 miles, assign a score of zero.	5	N/A	1-3, 5, 6, & 46
6. WELLHEAD PROTECTION AREA (WHPA): If any source lies within or above a WHPA, or if you have identified any primary target well within a WHPA, assign a score of 20; assign 5 if neither condition holds but a WHPA is present within 4 miles; otherwise assign zero.	5	N/A	1-3, 5, 41, 42 & 46
7. RESOURCES	0	N/A	1-3, 5 & 6
T =	17	N/A	

WASTE CHARACTERISTICS

8. A. If you have identified any primary target for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	N/A	
B. If you have NOT identified any primary target for ground water, assign the waste characteristics score calculated on page 4.	18	N/A
WC =	18	N/A

GROUND WATER PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

(subject to a maximum of 100)

2.04

PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	
0 to ¼ mile	0	20	1	2	5	16	52	163	521	1,633	5,214	16,325	0
> ¼ to ½ mile	0	18	1	1	3	10	32	101	323	1,012	3,233	10,121	0
> ½ to 1 mile	0	9	1	1	2	5	17	52	167	522	1,668	5,224	0
>1 to 2 miles	74	5	1	1	1	3	9	29	94	294	939	2,938	1
>2 to 3 miles	199	3	1	1	1	2	7	21	68	212	678	2,122	2
>3 to 4 miles	703	2	1	1	1	1	4	13	42	131	417	1,306	4
Nearest Well =		5	Score =										7

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	
0 to ¼ mile		20	1	2	5	16	52	163	521	1,633	5,214	16,325	
> ¼ to ½ mile		20	1	1	3	10	32	101	323	1,012	3,233	10,121	
>½ to 1 mile		20	1	1	3	8	26	82	261	816	2,607	8,162	
>1 to 2 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
>2 to 3 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
>3 to 4 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
Nearest Well =			Score =										

Notes:

SURFACE WATER PATHWAY MIGRATION ROUTE SKETCH

Surface Water Migration Route Sketch:

(include runoff route, probable point of entry, 15-mile target distance limit, intakes, fisheries, and sensitive environments).

Please see the following figures:

Figure 5: Overland Run-Off Routes and Probable Points of Entry; and

Figure 6: Overland Run-Off Routes, Probable Point of Entry, Target Distant Limit & Qualifying Wetland Frontage.

SURFACE WATER PATHWAY CRITERIA LIST	
SUSPECTED RELEASE	PRIMARY TARGETS
<p>Y N U e o n s k</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is surface water nearby?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is waste quantity particularly large?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the drainage area large?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is rainfall heavy?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is the infiltration rate low?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Are sources poorly contained or prone to runoff or flooding?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is a runoff route well defined (e.g., ditch or channel leading to surface water)?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is vegetation stressed along the probable runoff route?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Are sediments or water unnaturally discolored?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Is wildlife unnaturally absent?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has deposition of waste into surface water been observed?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is ground water discharge to surface water likely?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest surface water contamination?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SUSPECTED RELEASE?</p>	<p>Y N U e o n s k</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is any target nearby? If yes:</p> <p><input type="checkbox"/> Drinking water intake</p> <p><input checked="" type="checkbox"/> Fishery</p> <p><input type="checkbox"/> Sensitive environment</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has any intake, fishery, or recreational area been closed?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Does any target warrant sampling? If yes:</p> <p><input type="checkbox"/> Drinking water intake</p> <p><input checked="" type="checkbox"/> Fishery</p> <p><input checked="" type="checkbox"/> Sensitive environment</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> PRIMARY INTAKE(S) IDENTIFIED?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> PRIMARY FISHERY(IES) IDENTIFIED?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED?</p>
<p>Summarize the rationale for Suspected Release (attach an additional page if necessary):</p> <p>Please see Section 4.2 of the PA narrative report.</p>	<p>Summarize the rationale for Primary Targets (attach an additional page if necessary):</p> <p>Please see Section 4.2 of the PA narrative report.</p>

SURFACE WATER PATHWAY LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 11)?	Yes X No <u> </u>
Distance to surface water:	0 <u> </u> ft
Flood frequency:	1% annual chance/100 yrs
What is the downstream distance to the nearest drinking water intake?	14.5 <u> </u> miles
Nearest fishery?	0 <u> </u> miles
Nearest sensitive environment?	0 <u> </u> miles

LIKELIHOOD OF RELEASE

- SUSPECTED RELEASE:** If you suspect a release to surface water (see page 11), assign a score of 550. Use only column A for this pathway.
- NO SUSPECTED RELEASE:** If you do not suspect a release to surface water, use the table below to assign a score based on distance to surface water and flood frequency. Use only column B for this pathway.

Distance to surface water \leq 2,500 feet	500
Distance to surface water $>$ 2,500 feet, and	
Site in annual or 10-year floodplain	500
Site in 100-year floodplain	400
Site in 500-year floodplain	300
Site outside 500-year floodplain	100

	A <i>Suspected Release</i> <small>(550)</small>	B <i>No Suspected Release</i> <small>(500, 400, 300 or 100)</small>	
	550		<u>1 - 3, 5, 8</u> <u>26 & 27</u>
		N/A	
			<u>N/A</u>
LR =	550	N/A	

DRINKING WATER THREAT TARGETS

- Record the water body type, flow (if applicable), and number of people served by each drinking water intake within the target distance limit. If there is no drinking water intake within the target distance limit, factors 4, 5, and 6 each receive zero scores.

Intake Name	Water Body Type	Flow	People Served
_____	_____	_____ cfs	_____
_____	_____	_____ cfs	_____
_____	_____	_____ cfs	_____

- PRIMARY TARGET POPULATION:** If you suspect any drinking water intake listed above has been exposed to a hazardous substance from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the total population served.

_____ people \times 10 = **0**

- SECONDARY TARGET POPULATION:** Determine the number of people served by drinking water intakes that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 3.

Are any intakes part of a blended system? Yes **X** No
If yes, attach a page to show apportionment calculations.

- NEAREST INTAKE:** If you have identified a primary target population for the drinking water threat (factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking water intake exists within the target distance limit, assign a score of zero.

7. RESOURCES

		0		<u>1 - 3, 5, 8</u> <u>26, 27, 37 & 39</u>
		52	N/A	<u>1 - 3, 5, 8</u> <u>26, 27 & 39</u>
		1	N/A	<u>1 - 3, 5, 8</u> <u>26, 27, 37 & 39</u>
		5	N/A	<u>1 - 3, 5, & 6</u>
T =		58	N/A	

PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow (see PA Table 4)	Population	Nearest Intake (choose highest)	Population Served by Intakes Within Distance Category											Population Value
			1 to 10	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000	
<10 cfs	_____	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	_____
10 to 100 cfs	_____	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
>100 to 1,000 cfs	<u>40,300</u>	<u>1</u>	0	0	1	1	2	5	16	<u>52</u>	163	521	1,633	<u>52</u>
>1,000 to 10,000 cfs	_____	0	0	0	0	0	1	1	2	5	16	52	163	_____
>10,000 cfs or Great Lakes	_____	0	0	0	0	0	0	0	1	1	2	5	16	_____
3-mile Mixing Zone	_____	10	1	3	8	26	82	261	816	2,607	8,162	26,068	81,663	_____
Nearest Intake =		<u>1</u>												Score = <u>52</u>

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS
WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

TYPE OF Surface Water Body		Dilution Weight
Water Body Type	OR FLOW	
minimal stream	<10 cfs	1
small to moderate stream	10 to 100 cfs	0.1
moderate to large stream	>100 to 1,000 cfs	N/A
large stream to river	1,000 to 10,000 cfs	N/A
large river	>10,000 cfs	N/A
3-mile mixing zone of quiet flowing streams or rivers	10 cfs or greater	N/A
coastal tidal water (harbors, sounds, bays, etc.), ocean, or Great Lakes	N/A	N/A

**SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT SCORESHEET**

		A	B	References
LIKELIHOOD OF RELEASE		<i>Suspected Release</i> (550)	<i>No Suspected Release</i> (500,400,300 or 100)	
Enter Surface Water Likelihood of Release score from page 12.	LR =	550	N/A	

HUMAN FOOD CHAIN THREAT TARGETS

8. Record the water body type and flow (if applicable) for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a Targets score of 0 at the bottom of the page.

<i>Fishery Name</i>	<i>Water Body Type</i>	<i>Flow</i>
Sweetwater Creek Fishery	Moderate to large stream	100 – 1,000 cfs
		cfs
		cfs
		cfs
		cfs

9. PRIMARY FISHERIES: If you suspect any fishery listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the primary fisheries:

Sweetwater Creek, _____
_____, _____

10. SECONDARY FISHERIES

- A. If you suspect a release to surface water and have identified a secondary fishery but no primary fishery, assign a score of 210.
- B. If you do not suspect a release, assign a Secondary Fisheries score from the table below using the lowest flow at any fishery within the target distance limit.

<i>Lowest Flow</i>	<i>Secondary Fisheries Score</i>
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

(300)		1 – 3, 5, 6, 8, 29 & 30
300		1 – 3, 5, 6 & 8
(210)		
N/A		N/A
	(210,30, or 12)	
	N/A	N/A
(300,210, or 0)	(210,30,12 or 0)	
T = 300	N/A	

**SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT SCORESHEET**

LIKELIHOOD OF RELEASE		A	B	<i>References</i>																								
		<i>Suspected Release</i> <small>(140)</small>	<i>No Suspected Release</i> <small>(500, 400, 300 or 100)</small>																									
Enter Surface Water Likelihood of Release score from page 12.	LR =	550	N/A																									
ENVIRONMENTAL THREAT TARGETS																												
<p>11. Record the water body type and flow (if applicable) for each surface water sensitive environment within the target distance limit (see PA Tables 4 and 5). If there is no sensitive environment within the target distance limit, assign a Targets score of 0 at the bottom of the page.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Environment Name</th> <th style="text-align: left;">Water Body Type</th> <th style="text-align: left;">Flow</th> </tr> </thead> <tbody> <tr> <td><u>Pond A Wetlands</u></td> <td><u>N/A</u></td> <td><u>N/A</u> cfs</td> </tr> <tr> <td><u>Sweetwater Creek Wetlands</u></td> <td><u>Moderate to large stream</u></td> <td><u>100 – 1,000</u> cfs</td> </tr> <tr> <td> </td> <td> </td> <td> cfs</td> </tr> <tr> <td> </td> <td> </td> <td> cfs</td> </tr> <tr> <td> </td> <td> </td> <td> cfs</td> </tr> </tbody> </table>					Environment Name	Water Body Type	Flow	<u>Pond A Wetlands</u>	<u>N/A</u>	<u>N/A</u> cfs	<u>Sweetwater Creek Wetlands</u>	<u>Moderate to large stream</u>	<u>100 – 1,000</u> cfs			cfs			cfs			cfs						
Environment Name	Water Body Type	Flow																										
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		cfs																										
		cfs																										
		cfs																										
<p>12. PRIMARY SENSITIVE ENVIRONMENTS: If you suspect any sensitive environment listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate factor 13. List the primary sensitive environments:</p> <p><u>Pond A</u>, <u>Sweetwater Creek</u></p> <p> </p>																												
<p>13. SECONDARY SENSITIVE ENVIRONMENTS: If sensitive environments are present, but none is a primary sensitive environment, evaluate Secondary Sensitive Environments based on flow.</p> <p>A. For secondary sensitive environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Flow</th> <th style="text-align: left;">Dilution Weight (PA Table 4)</th> <th style="text-align: left;">Environment Type and Value (PA Tables 5 and 6)</th> <th style="text-align: left;">Total</th> </tr> </thead> <tbody> <tr><td> cfs</td><td> </td><td> </td><td> </td></tr> <tr><td> cfs</td><td> </td><td> </td><td> </td></tr> <tr><td> cfs</td><td> </td><td> </td><td> </td></tr> <tr><td> cfs</td><td> </td><td> </td><td> </td></tr> <tr><td> cfs</td><td> </td><td> </td><td> </td></tr> </tbody> </table>					Flow	Dilution Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total	cfs				cfs				cfs				cfs				cfs			
Flow	Dilution Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total																									
cfs																												
cfs																												
cfs																												
cfs																												
cfs																												
Sum =		N/A	N/A	N/A																								
<p>B. If all secondary sensitive environments are located on surface water bodies with flows > 100 cfs, assign a score of 10.</p>																												
T =		300	N/A	N/A																								

PA TABLE 5: SURFACE WATER AND AIR PATHWAY SENSITIVE ENVIRONMENTS VALUES

<i>Sensitive Environment</i>	<i>Assigned Value</i>
Critical habitat for Federally designated endangered or threatened species Marine Sanctuary National Park Designated Federal Wilderness Area Ecologically important areas identified under the Coastal Zone Wilderness Act Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act Critical Areas Identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes) National Monument (air pathway only) National Seashore Recreation Area National Lakeshore Recreation Area	100
Habitat known to be used by Federally designated or proposed endangered or threatened species National Preserve National or State Wildlife Refuge Unit of Coastal Barrier Resources System Federal land designated for the protection of natural ecosystems Administratively Proposed Federal Wilderness Area Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay, or estuary Migratory pathways and feeding areas critical for the maintenance of anadromous fish species in a river system Terrestrial areas utilized for breeding by large or dense aggregations of vertebrate animals (air pathway) or semi-aquatic foragers (surface water pathway) National river reach designated as Recreational	75
Habitat known to be used by State designated endangered or threatened species Habitat known to be used by a species under review as to its Federal endangered or threatened status Coastal Barrier (partially developed) Federally designated Scenic or Wild River	50
State land designated for wildlife or game management State designated Scenic or Wild River State designated Natural Area Particular areas, relatively small in size, important to maintenance of unique biotic communities	25
State designated areas for protection/maintenance of aquatic life under the Clean Water Act	5
Wetlands	See PA Table 6 (Surface Water Pathway) or PA Table 9 (Air Pathway)

**PA TABLE 6: SURFACE WATER PATHWAY
WETLANDS FRONTAGE VALUES**

<i>Total Length of Wetlands</i>	<i>Assigned Value</i>
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 18 to 20 miles	450
Greater than 20 miles	500

**SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY**

WASTE CHARACTERISTICS	A	B
	<i>Suspected Release</i>	<i>No Suspected Release</i>
14. A. If you have identified any primary target for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32) 32	
B. If you have NOT identified any primary target for surface water, assign the waste characteristics score calculated on page 4.	(100, 32, or 18) N/A	(100, 32, or 18) N/A
WC =	32	N/A

SURFACE WATER PATHWAY THREAT SCORES

Threat	<i>Likelihood of Release (LR) Score (from page 12)</i>	<i>Targets (T) Score (pages 12, 14, 15)</i>	<i>Pathway Waste Characteristics (WC) Score (determined above)</i>	<i>Threat Score LR x T x WC / 82,500</i>
Drinking Water	550	58	32	(subject to a maximum of 100) 12.37
Human Food Chain	550	300	32	(subject to a maximum of 100) 64
Environmental	550	300	32	(subject to a maximum of 80) 64

SURFACE WATER PATHWAY SCORE
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat)

(subject to a maximum of 100) 100

SOIL EXPOSURE PATHWAY CRITERIA LIST	
SUSPECTED CONTAMINATION	RESIDENT POPULATION
<p>Surficial contamination can generally be assumed.</p>	<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does any neighboring property warrant sampling?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> RESIDENT POPULATION IDENTIFIED?</p>
<p>Summarize the rationale for Resident Population (attach an additional page if necessary):</p> <p>Please see Section 5.4.1 of PA report narrative.</p>	

SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics		
Do any people live on or within 200 ft of areas of suspected contamination?	Yes	No X
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination?	Yes	No X
Is the facility active? Yes X No <input type="checkbox"/> If yes, estimate the number of workers: 3		

LIKELIHOOD OF EXPOSURE

1. SUSPECTED CONTAMINATION: Surficial contamination can generally be assumed, and a score of 550 assigned. Assign zero only if the absence of surficial contamination can be confidently demonstrated.

LE =

Suspected Contamination (550 or 0)
550

References

1-3, 5, 7 & 12

RESIDENT POPULATION THREAT TARGETS

2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or daycare on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18).

0 people x 10 =**0**

(50 or 0)

1-6

3. RESIDENT INDIVIDUAL: If you have identified a resident population (factor 2), assign a score of 50; otherwise, assign a score of 0.

0

(15, 10, 5, or 0)

1-6

4. WORKERS: Use the following table to assign a score based on the total number of workers at the facility and nearby facilities with suspected contamination:

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
>1,000	15

5

1-3, 5 & 44

5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Use PA Table 7 to assign a value for each terrestrial sensitive environment on an area of suspected contamination:

Terrestrial Sensitive Environment Type	Value
N/A	

Sum =

0

(1 or 0)

1-3 & 66-68

6. RESOURCES

5

1-3, 5, 6 & 8

T =

10

WASTE CHARACTERISTICS

7. Assign the waste characteristics score calculated on page 4.

WC =

(100, 32, or 18)

18

RESIDENT POPULATION THREAT SCORE:

$$\frac{LE \times T \times WC}{82,500}$$

(Subject to a maximum of 100)
1.2

NEARBY POPULATION THREAT SCORE:

(4, 2, or 1)
1

1-3 & 48

SOIL EXPOSURE PATHWAY SCORE:

Resident Population Threat + Nearby Population Threat

(Subject to a maximum of 100)
2.2

**PA TABLE 7: SOIL EXPOSURE PATHWAY
TERRESTRIAL SENSITIVE ENVIRONMENT VALUES**

<i>Terrestrial Sensitive Environment</i>	Assigned Value
Terrestrial critical habitat for Federally designated endangered or threatened species National Park Designated Federal Wilderness Area National Monument	100
Terrestrial habitat known to be used by Federally designated or proposed threatened or endangered species National Preserve (terrestrial) National or State terrestrial Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	75
Terrestrial habitat used by State designated endangered or threatened species Terrestrial habitat used by species under review for Federal designated endangered or threatened status	50
State lands designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	25

AIR PATHWAY CRITERIA LIST	
SUSPECTED RELEASE	PRIMARY TARGETS
<p>Y N U e o n s k</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are odors currently reported?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Has release of a hazardous substance to the air been directly observed?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Does analytical or circumstantial evidence suggest a release to the air?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Other criteria? _____</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> SUSPECTED RELEASE?</p>	<p>If you suspect a release to air, evaluate all populations and sensitive environments within 1/4 mile (including those onsite) as primary targets.</p>
<p>Summarize the rationale for Suspected Release (attach an additional page if necessary):</p> <p>Please see Section 5.4.2 of the PA narrative report.</p>	

AIR PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 21)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Distance to the nearest individual:	375 feet

LIKELIHOOD OF RELEASE

1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550. Use only column A for this pathway.
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500. Use only column B for this pathway.

	A	B	References
	Suspected Release (540)	No Suspected Release (500)	
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550. Use only column A for this pathway.	N/A		N/A
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500. Use only column B for this pathway.		500	1 - 3, 5, 7 & 12
LR =	N/A	500	

TARGETS

3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a suspected release of hazardous substances to the air.
_____ people x 10 =
4. SECONDARY TARGET POPULATION: Determine the number of people not suspected to be exposed to a release to air, and assign the total population score using PA Table 8.
5. NEAREST INDIVIDUAL: If you have identified any Primary Target Population for the air pathway, assign a score of 50; otherwise, assign the Nearest Individual score from PA Table 8.
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from a suspected release to the air.

Sensitive Environment Type	Value

Sum =

7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.
8. RESOURCES

T =

	A	B	References
	Suspected Release (540)	No Suspected Release (500)	
3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a suspected release of hazardous substances to the air. _____ people x 10 =	N/A		N/A
4. SECONDARY TARGET POPULATION: Determine the number of people not suspected to be exposed to a release to air, and assign the total population score using PA Table 8.	N/A	26	1 - 3, 5, 7, 12 & 48
5. NEAREST INDIVIDUAL: If you have identified any Primary Target Population for the air pathway, assign a score of 50; otherwise, assign the Nearest Individual score from PA Table 8.	N/A	20	1 - 3, 5, 7, 12 & 48
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from a suspected release to the air.	N/A		N/A
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.	N/A	5.02	1 - 3, 5, 6, 8 & 66 - 68
8. RESOURCES	N/A	5	1 - 3, 5, 6 & 8
T =	N/A	56.02	

WASTE CHARACTERISTICS

9. A. If you have identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.
- B. If you have NOT identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4.

WC =

	A	B
	(100 or 32)	(100, 32, or 18)
9. A. If you have identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	N/A	
B. If you have NOT identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4.	N/A	18
WC =	N/A	18

AIR PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

(subject to a maximum of 100)

6.11

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category												Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000	
Onsite	0	20	1	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	0
>0 to ¼ mile	73	20	1	1	1	4	13	41	130	408	1,303	4,081	13,034	40,811	1
>¼ to ½ mile	405	2	0	0	1	1	3	9	28	88	282	882	2,815	8,815	3
>½ to 1 mile	2,279	1	0	0	0	1	1	3	8	26	83	261	834	2,612	3
>1 to 2 miles	10,450	0	0	0	0	0	1	1	3	8	27	83	266	833	8
>2 to 3 miles	22,623	0	0	0	0	0	1	1	1	4	12	38	120	376	4
>3 to 4 miles	30,853	0	0	0	0	0	0	1	1	2	7	23	73	229	7
Nearest Individual =		20	Score =												26

PA TABLE 8: AIR PATHWAY VALUES FOR WETLAND AREA	
Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS			
<i>Distance</i>	<i>Distance Weight</i>	<i>Sensitive Environment Type and Value (from PA Table 5 or 9)</i>	<i>Product</i>
Onsite	0.10	x 25 – Wetlands (1 – 50 acres)	2.5
		x	
0-1/4 mi	0.025	x 25 – Wetlands (1 – 50 acres)	0.625
		x	
		x	
1/4-1/2 mi	0.0054	x 25 – Wetlands (1 – 50 acres)	0.135
		x 75 – Gulf Moccasinshell	0.405
		x 50 – Bald Eagle	0.270
		x 50 – Bay Star-vine	0.270
		x 50 – Georgia Aster	0.270
		x 50 – Chattahoochee Crayfish	0.270
		x 25 – Highland Shiner	0.135
		x 25 – Pink Landslipper	0.135
A-45 Total Environment Score =			5.02

SITE SCORE CALCULATION

	S	S ²
GROUND WATER PATHWAY SCORE (S _{gw}):	2.04	4.16
SURFACE WATER PATHWAY SCORE (S _{sw}):	100	10,000
SOIL EXPOSURE PATHWAY SCORE (S _s):	2.2	4.84
AIR PATHWAY SCORE (S _a):	6.11	37.33
SITE SCORE:	$\sqrt{\frac{S_{gw}^2+S_{sw}^2+S_s^2+S_a^2}{4}}$	
		50.12

SUMMARY

	YES	NO
1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? A. If yes, identify the well(s). _____ B. If yes, how many people are served by the threatened well(s)? _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water? A. Drinking water intake <input type="checkbox"/> B. Fishery <input checked="" type="checkbox"/> C. Sensitive environment (wetland, critical habitat, others) <input checked="" type="checkbox"/> D. If yes, identify the target(s). <u>Fishery and wetlands located at PPE #2 and PPE #3 (within Sweetwater Creek)</u> <u>and wetlands located at PPE #1 (within Pond A), (Refs. 1 – 3, 5, 8, 26 & 27).</u>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? If yes, identify the property(ies) and estimate the associated population(s). _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Are there public health concerns at this site that are not addressed by PA scoring considerations? If yes, explain: _____ _____ _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>